

1 IN THE UNITED STATES DISTRICT COURT
2 FOR THE EASTERN DISTRICT OF TENNESSEE
3 NORTHERN DIVISION, AT KNOXVILLE, TENNESSEE

4 George Chesney, Jot Raymond, :
5 Anita Auchard, Lee Scofield, :
6 James Campbell, et., al., : **VOLUME II**
7 Plaintiffs, :
8 Vs. : CV
9 Tennessee Valley Authority : 3-09-09
10 Defendant, : 3-09-48
11 : 3-09-54
12 : 3-09-64
13 : 3-09-517

14 Transcript of trial proceedings before the
15 Honorable Thomas A. Varlan on September 20, 2011.

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(Trial was resumed on September 20, 2011)

THE COURT: Good morning everybody.

4 Mr. Davis, are you going to examine the next witness?

MR. DAVIS: Yes, I will. I believe

6 Mr. Marquand has something to address the Court with.

MR. MARQUAND: Just a housekeeping matter,

8 Your Honor. Yesterday during cross-examination of

9 Mr. Buttram we introduced two photographs from a

10 document that had been marked for identification to be
11 Exhibit 34. We introduced those into evidence

¹² See also the discussion of the role of the state in the development of the economy in Chapter 1.

resubmit those and they have been remarked as

14 || Defendant's Exhibit 34A, that is, page 37 of '.

15 marked as TVA Exhibit 34. It was identified yesterday
16

TO THE RECORD AS FOR 277012.

THE COURT: Go ahead and show soon or

TO CREAM.

MR. MARQUAND. All right.

THE COURT: THIS IS 54B.

21 MR. MARQUAND. 34B was introduced
22 yesterday and it is, it was identified at that time as
23 TVK-277811. It is in fact page 36 of what has been
24 marked as TVA Exhibit 34.

THE COURT: Any objection? We'll allow

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1 those two photographs to be relabeled and introduced as
2 Defendant's Exhibit 34A and Defendant's Exhibit 34B.

3 MR. DAVIS: We are calling Mr. Matthew
4 Williams.

5 MATTHEW WILLIAMS

6 was first duly sworn and testified as follows:

7 COURTROOM DEPUTY: Have a seat and state
8 your name for the record.

9 **DIRECT EXAMINATION**

10 BY MR. DAVIS:

11 Q. Good morning, Mr. Williams.

12 A. My name is Matthew Williams.

13 Q. My name is Gary Davis. We haven't met before
14 have we?

15 A. No, sir.

16 Q. We haven't taken your deposition, but I'm sure
17 you know what you are here for today?

18 A. Yes.

19 Q. Before we start, you know that there is a
20 folder full of exhibits in front of you on the desk to
21 your left there, that big bucket as we call it. Those I
22 will be referring to, as we go through your testimony.
23 Let me ask you, first of all, you are employed with TVA,
24 correct?

25 A. Yes, sir.

1 Q. How long have you been with TVA?

2 A. Since May of 2002.

3 MR. DAVIS: And, Your Honor, we are going
4 to be taking this witness as an adverse witness. I just
5 wanted to ask the Court for permission to do that.

6 THE COURT: That's fine. He hasn't been
7 identified by position or anything. Absent objection,
8 we'll allow you to proceed in that way.

9 BY MR. DAVIS:

10 Q. Mr. Williams, what are your responsibilities
11 or position, or both, with TVA?

12 A. I am an environmental engineer with TVA. My
13 responsibilities, I'm in a field engineering outfit and
14 we are specialized -- I typically specialize in
15 groundwater work doing sampling and monitoring around
16 permitted facilities at TVA.

17 Q. Are you an engineer?

18 A. Yes.

19 Q. What type of engineer?

20 A. I am an environmental engineer by position. I
21 have a civil degree undergraduate and a Master's in
22 environmental engineering.

23 Q. You are not a geotechnical engineer are you?

24 A. I am not.

25 Q. Do you have any training in dike stability

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1 inspections or slope stability evaluations at all?

2 A. No specific training. I have had some
3 academic background works and general work within
4 studies within civil engineering.

5 Q. And you are primarily focused in your job on
6 taking the samples or measuring environmental levels of
7 some type, is that correct?

8 A. Yes, sir, including hydraulic parameters.

9 Q. What do you mean by hydraulic parameters?

10 A. Typically we'll get environmental samples
11 including water surface measurements.

12 Q. Now, you have had some involvement with the
13 Kingston ash disposal site prior to December 22nd, 2008,
14 correct?

15 A. Yes, sir. I have been involved with
16 monitoring out there, field monitoring since September
17 of 2002.

18 Q. Okay. Let me show you what has been marked as
19 Exhibit 59. It is in your folder there, if you can
20 bring it up. I want to just orient ourselves a little
21 bit using this exhibit, if we may. Can you identify
22 this aerial photograph as a photograph of the Kingston
23 ash disposal site prior to the disaster on December 22,
24 2008?

25 (Exhibit No. P-59 was marked for

1 identification.)

2 A. Yes, I can.

3 Q. Okay. We have been using terminology that I
4 want to see if you will agree with in this trial thus
5 far. That the dikes have names based on directions, and
6 I want to focus on the dredge cells, if we will that are
7 labeled in this aerial. First of all, do you see the
8 Swan Pond Road label here?

9 A. Yes, I do.

10 Q. And secondly, would that be the West Dike as
11 it is sometimes called? Do you agree with that
12 terminology?

13 A. I myself have not used that terminology, but
14 it is the northwest facing dike.

15 Q. What terminology do you normally use for that
16 dike?

17 A. We usually use just the Swan Pond Road face.

18 Q. Okay, would you agree if I say "west" that's
19 what I am referring to?

20 A. Yes, sir.

21 Q. Now, if you look at the dredge cell number 2
22 and the dike that is facing the top of the aerial, that
23 direction is north -- I will tell you that, if you'll
24 agree with that. Is that what you understand?

25 A. Yes, sir.

1 Q. We have been using the terminology "North
2 Dike" for that dike of the Dredge Cell Number 2. Do you
3 call it that yourself or what would you call it?

4 A. Are you specifically referring to just the
5 area around the red line or the general northeastern
6 face of Dredge Cell Number 2?

7 Q. That is what I'm trying to understand. I have
8 seen you refer to that as northeast. The whole north
9 face of Dredge Cell 2, do you call it north or
10 northeastern?

11 A. Probably northeastern facing is the
12 terminology I would use most.

13 Q. Just so we understand if you see where Swan
14 Pond Road curves to the left, as we are going to the
15 north and where the red line basically is on this
16 drawing the probable December 2008 failure location, can
17 you agree that -- I'm sorry, are you calling all of that
18 face of Dredge Cell Number 2 dikes all of the way around
19 to the eastern most part of the north face of Dredge
20 Cell 2? Are you calling that northeast?

21 A. Typically I refer to the faces of the dikes by
22 the direction that they extend. You know, when you say
23 the corner and all of the way around, you know, I will
24 typically make a, distinguish a point at where that
25 corner of that northern most corner which would be

1 indicated by, you know, under the line of Dredge Cell 2.

2 Q. So north would pretty much be where the red
3 line is, is that what you are saying?

4 A. I am saying the northern most corner would be
5 about midway under that red line.

6 Q. The rest you call northeast?

7 A. Yes, sir.

8 Q. Thank you. Now, when you refer to south, what
9 do you mean on this drawing?

10 A. If I was to say the south portion of the
11 dredge cell, from this drawing I would say it is
12 probably the southern most face of Dredge Cell 1.

13 Q. Okay. And the monitoring that you have done
14 at the Kingston Coal Ash Facility has been on the north,
15 the west and the south face of the dredge cells, is that
16 correct?

17 A. And you are talking about the hydraulic
18 monitoring?

19 Q. Yes.

20 A. Yes, well, our monitoring was on the, as you
21 indicate, the western face along Swan Pond Road, which I
22 call the northwest face, as well as the southern face
23 along Dredge Cell 1 and the northeastern face along
24 Dredge Cell 2.

25 Q. Okay, we'll get the location more precise in a

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1 minute. I wanted to make sure that we're oriented to
2 this aerial photograph.

3 Can you state what your duties were at the
4 Kingston Coal Ash Facility prior to December 22, 2008.

5 A. Yes, sir. I had primarily two interfaces, two
6 responsibilities out there. We were doing groundwater
7 monitoring of what we call the ash pond area which
8 included the dredge cell and the main ash pond which was
9 sampling to support a TDEC permit, a solid waste permit
10 for the region which was comprised of semi-annual
11 sampling of wells out there. These would be four wells,
12 including one along Swan Pond Road which was our
13 upgrading and background location and three down
14 gradient.

15 Q. Let me stop you there one second. I want to
16 make sure that we are distinguishing between the water
17 quality monitoring that you just spoke about and the
18 water level monitoring that I am going to talk about for
19 the rest of the testimony.

20 A. Yes, sir. This was generally water quality
21 monitoring. There was a hydrologic component that we
22 are required to submit to the state, a potentiometric
23 map which shows a general direction of flow across the
24 dredge cell and the ash pond.

25 Q. Those were flows, those are groundwater levels

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1 and flows in the deep groundwater below the coal ash,
2 correct?

3 A. Yes, sir. Typically they are, it would be in
4 the alluvium which resides beneath the coal ash.

5 Q. That is just to check for groundwater
6 contamination, correct?

7 A. Yes, sir, we monitor groundwater
8 contamination.

9 Q. I am not going to refer to those any more in
10 your testimony.

11 A. Understood.

12 Q. What is the second set of monitoring that you
13 did at the Kingston Coal Ash Facility?

14 A. The second set of monitoring would be
15 monitoring wells and piezometers along the dredge cell
16 including -- this would go as far back as February of
17 2005. This would be monthly monitoring that we
18 maintained until the failure of the dredge cell in
19 December of 2008.

20 Q. Okay, I am going to walk you through some of
21 those reports that you submitted. Just before I do
22 though, let me get you to state what a piezometer is.

23 A. A piezometer is typically a pipe, a one inch
24 and up, that we would install to monitor water levels of
25 a discrete vertical interval. Typically when we refer

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1 to a well we are referring to something, a device that
2 while it looks similar to a piezometer in construction
3 form it is used for multiple purposes. The piezometer
4 is typically only for water levels and it is typically
5 only to measure water levels in that discrete horizon
6 that it is screened in. When I say screened, it is open
7 at the bottom with an actual screen to that layer, to
8 that material.

9 Q. May we get you to look at Exhibit 596, please.
10 It is in your folder, if you care to see a paper copy of
11 it.

12 (Exhibit No. P-596 was marked for
13 identification.)

14 MR. DAVIS: Before we leave Exhibit 59,
15 may we enter that, Your Honor.

16 MR. MARQUAND: Your Honor, the witness
17 testified to this as an aerial photograph. I don't
18 believe he has identified or can sponsor any of these
19 labels without any testimony or the data for what it --

20 THE COURT: We'll mark it for
21 identification for the time being. You can continue to
22 use it with the witnesses and move it for admission at
23 the appropriate time.

24 MR. DAVIS: Thank you, Your Honor.

25 BY MR. DAVIS:

1 Q. If we can turn to what is labeled as
2 deposition exhibit page 220, please. You can look at
3 your screen now, or you can look at it on paper
4 Mr. Williams. Is this a diagram of a piezometer?

5 A. This would actually be a monitoring well.
6 Again, the distinction I make is they are similar in
7 design and construction. This would be typical of what
8 a piezometer is, but this is in fact a monitoring well.

9 Q. Why does it say "Type I piezometer
10 Installation Record" at the top?

11 A. You know, that could be language that MACTEC
12 uses. Again, when we use the term "well" it is because
13 we are getting something more from it than just water
14 level readings.

15 Q. Okay. If you are using a well -- let's go
16 ahead and identify what MACTEC document this is. If you
17 will turn back to the cover page and switch back to
18 that, please.

19 This is a report from MACTEC, and can you
20 state what MACTEC is referring to in this report and the
21 date of it, please.

22 A. The title is the "Report of Monitoring Well
23 Installation, Dredge Cell Dike Restoration, TVA Kingston
24 Fossil Plant." The date is September 16th, 2005.

25 Q. And this is actually three of the piezometers

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1 or wells that you monitored, is that correct; 13, 14 and
2 15?

3 A. This would actually be six of the wells that
4 we monitored.

5 Q. Three on the north and three on the south?

6 A. That is correct, three to the north, yeah.

7 Q. And just so that we are using the terms
8 correctly, if a well is only used for measuring water
9 levels, could you also call it a piezometer?

10 A. We could.

11 Q. As a matter of fact, you just pointed out the
12 diagram says "piezometer" for this particular MW-13 that
13 we looked at, correct?

14 A. Correct.

15 Q. Okay. Now, you understand that TVA decided to
16 install piezometers in 2005 to monitor water levels in
17 the dikes of the Kingston Coal Ash Facility, correct?

18 A. Yes. Among other purposes.

19 Q. Well, and these were installed as a result of
20 the 2003 blowout, do you recall that?

21 A. I do recall and the wells that were actually
22 installed in January of 2005 were actually installed for
23 multi-purpose including we had a permit that we were
24 submitting for expansion of the dredge cell. This would
25 be a lateral expansion area. We wanted some

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1 multi-purpose wells out there that we can use to test
2 some of the hydraulic properties of the dredge cell.
3 That was one function that I was aware of. I am aware
4 that there were other functions that were being used by
5 other groups.

6 Q. These are some of the wells or piezometers
7 that you monitored starting in February of 2005 up to
8 the time of the failure of the dikes, is that right?

9 A. Yes, sir.

10 Q. Now, let's, if you will, look at Exhibit 562,
11 please.

12 (Exhibit No. P-562 was marked for
13 identification.)

14 While you are doing that, Your Honor, we
15 would like to go ahead and enter Exhibit 596.

16 MR. MARQUAND: No objection.

17 THE COURT: So admitted.

18 (Exhibit No. P-596 was received in
19 evidence.)

20 BY MR. DAVIS:

21 Q. You mentioned -- it is a large document. I am
22 not going through all of it with you, Mr. Williams. You
23 mentioned a permit application. When you said permit
24 application, did you mean a solid waste permit
25 application with the Tennessee Department of Environment

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1 and Conservation?

2 A. Yes, sir, I believe the lateral expansion was
3 either a new proposal or amendment to an existing
4 permit.

5 Q. If you can look at what we have shown you as
6 Exhibit 562, please. This is also a permit modification
7 with the Tennessee Department of Environment and
8 Conservation, correct?

9 A. Yes, sir.

10 Q. And this shows in the upper left-hand corner
11 "approved as minor modification" by a TDEC official. Do
12 you understand that?

13 A. Yes, sir.

14 Q. Now, if we can turn, please, to the third page
15 of this document. This shows it was submitted by TVA on
16 April 27th, 2005, correct?

17 A. Yes, sir.

18 Q. Okay. And the purpose of this minor
19 modification you can see in this paragraph that is
20 highlighted here was to allow the repair of the blowout,
21 right?

22 MR. MARQUAND: Your Honor, I think the
23 document speaks for itself. I am not sure the witness
24 has personal knowledge, at least that has been
25 established.

1 THE COURT: We'll see if he does. You can
2 answer to the extent you can. He can answer to the
3 extent he can or you can reword the question, if you
4 like.

5 THE WITNESS: I just point out I have
6 never seen this document before. My interpretation of
7 this document would be from just what I read.

8 BY MR. DAVIS:

9 Q. Are you saying you were not informed about
10 this document?

11 A. I was not informed about this document. I
12 don't know I necessarily needed to be.

13 Q. Let me show you what is page 5 of this
14 document -- it is not page 5. It would be the page that
15 has 431 exhibit number at the bottom. If you can turn
16 to that, please. You understand this is a permit
17 modification, right? It is part of a permit with the
18 Tennessee Department of Environment and Conservation?

19 A. Yes, sir.

20 Q. Okay. Now, look at this conclusion on this
21 page. Just go ahead and read the second paragraph
22 there. Read it out loud.

23 A. "To insure that the proposed fix is
24 successful, TVA will install piezometers on the north,
25 south and western faces of its dredge cells. To monitor

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1 performance of the drainage system, the phreatic surface
2 measured in these piezometers will be compared with that
3 predicted in the models."

4 Q. That sounds like the piezometers that you were
5 monitoring, is that right?

6 A. Yes, sir.

7 Q. You weren't informed about this permit
8 requirement?

9 A. I was not.

10 Q. You knew that TVA decided to monitor
11 piezometers on the north, west and south faces of the
12 dredge cells, right?

13 A. I knew because I was in charge of scheduling
14 folks to go out there and perform the measurements.

15 Q. Okay. Now, you say that was your job to
16 either monitor or to arrange to have someone actually go
17 measure the levels, is that right?

18 A. Yes, sir.

19 Q. And there is a second part. If you can bring
20 that paragraph back up, please. You are still looking
21 at it, are you not, Mr. Williams?

22 A. There it is.

23 Q. Is there is a second sentence that you read in
24 this paragraph that talks about that these piezometers
25 will be compared -- "the phreatic surface measured in

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1 these piezometers will be compared with that predicted
2 in the models." What model are they talking about, do
3 you know?

4 A. I do not know.

5 Q. Are you aware of any comparison that TVA did
6 with water levels on any particular models?

7 A. I am not.

8 Q. Okay. But you do understand that it was
9 important to monitor these water levels to prevent
10 another blowout, right?

11 A. I understood that the, that was our job to
12 monitor water levels. We didn't really have any further
13 discussion.

14 Q. Are you saying you weren't informed that it
15 was important to monitor these water levels to prevent a
16 blowout of the dredge cells?

17 A. I think it is reasonable based upon my
18 experience and my education that we knew that the
19 hydraulic monitoring that we were doing was an important
20 component to measure to keep tabs on the water surfaces
21 within the cell.

22 Q. And you were familiar with the November, 2003
23 blowout, were you not?

24 A. Yes.

25 Q. Did you see it yourself?

1 A. No.

2 Q. Okay. Did you see photographs of it?

3 A. No.

4 Q. But you knew it occurred and you knew it was
5 on the West Dike, is that right?

6 A. Yes, sir.

7 Q. Or the Swan Pond Road dike.

8 Now, you didn't determine the location of
9 those piezometers that you monitored, did you?

10 A. No, sir.

11 Q. And that was done by TVA engineers or
12 consultants, as far as you know?

13 A. As I recall, it was done by TVA and they might
14 have had some input from outside contractors.

15 Q. And just before we leave, and we don't need
16 this on the screen, before we leave Exhibit 562 for the
17 moment, could you look at the third page of it, please.
18 This is the permit document we have been talking about.
19 This was stamped by Harold Petty, is that correct?

20 A. Yes, sir.

21 Q. And is he sometimes known as Lynn Petty?

22 A. Yes, sir.

23 Q. Is he a TVA engineer?

24 A. He is.

25 Q. That is dated 4-26-05, correct?

1 A. Yes, sir.

2 Q. And so a TVA engineer submitted the permit
3 modification that contained the requirement to monitor
4 on the north, the west and south dikes, correct?

5 MR. MARQUAND: Objection, foundation.

6 MR. DAVIS: I think we have the document
7 in front of us, Your Honor. I don't know what more
8 foundation he needs.

9 MR. MARQUAND: He has no personal
10 knowledge to this. How is he going to know that?

11 THE COURT: The witness can respond
12 accordingly. You may answer to the extent you can.

13 THE WITNESS: I am sorry. Can you repeat
14 the question.

15 BY MR. DAVIS:

16 Q. A TVA engineer submitted this permit
17 modification that had the requirement to monitor on the
18 north, the west and the south dikes of dredge cells?

19 A. A TVA engineer stamped this. I can tell you
20 that with certainty.

21 Q. And this you mean Exhibit 562 which contains
22 the requirement for monitoring on the north, the west
23 and south dikes, correct?

24 A. Yes, sir.

25 Q. Now, you would agree, would you not, that to

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1 meet the requirements that we have just discussed with
2 the permit modification, that the water level monitoring
3 needs to be complete?

4 A. I would agree that water level monitoring
5 needs to be performed. In terms of complete, I guess I
6 do not understand what you are asking.

7 Q. Let me see if I can explain that a little
8 more, "that all specified piezometers need to be
9 monitored."

10 A. This document indicates that that was, you
11 know, what they proposed and that was a starting point.
12 I will agree to that. I also agree that being familiar
13 with these types of permits that they become essentially
14 living, somewhat living documents in terms of, you know,
15 discussions with the state and when certain aspects of
16 it become more valuable and certain aspects become less
17 valuable they may or may not alter the, you know, what
18 is necessary.

19 Q. As far as you know, there was not another
20 modification that eliminated this requirement?

21 A. Not that I am aware of.

22 Q. As a matter of fact, you continued performing
23 the monitoring that was specified in this permit
24 modification up until December of 2008, correct?

25 A. We performed the monitoring that was started

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1 with this. Actually we had been monitoring for a couple
2 of months before this permit was even submitted to the
3 state.

4 Q. Well, and just so we understand what I mean by
5 complete, is that if TVA decided to monitor certain
6 piezometers and that was given to you as your task, that
7 "complete" would be monitoring those that were
8 specified, correct?

9 A. Yes, sir.

10 Q. I mean, it wasn't up to you to decide which
11 ones to monitor, if TVA told you to monitor certain
12 ones, right?

13 A. No. We got what we were told to get.

14 Q. And you would agree that water level
15 monitoring needs to be consistent. I will explain what
16 I mean by that. That you can, you're monitoring the
17 same wells or piezometers on a month-by-month basis so
18 you can see trends, is that right?

19 A. That's typically best to get it on some
20 regular interval and to have a complete snapshot.

21 Q. You would agree that the wet cool winter
22 months in East Tennessee are important for paying
23 attention to the water levels in these dikes, is that
24 right?

25 A. Well, the whole year is important, but, you

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1 know, typically we see higher water levels within the
2 winter and lower in the summer, lower during the dry
3 period and higher during the wet period.

4 Q. So far we just talked about the November, 2003
5 blowout. That was in the cool wet time of the year,
6 right?

7 A. Yes, sir.

8 Q. And we are going to get to the November, 2006
9 blowout, but that was also in the cool wet time of the
10 year, correct?

11 A. Yes, sir.

12 Q. Now, just going back in time you mentioned
13 that these piezometers that were required by the permit
14 were installed beginning in 2005 and you started
15 monitoring them in February of 2005, is that correct?

16 A. That's correct. Sometime late February of
17 2005.

18 Q. And the ones that you began monitoring in
19 February of 2005 were 18 in number, is that correct?

20 A. I do not know the exact number off the top of
21 my head.

22 Q. We'll come to some documents that will help
23 you with that in just a minute. Those at first were on
24 the west, is that correct, on the West Dike?

25 A. The very first ones were on the West Dike

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1 along Swan Pond Road. They should be labeled something
2 like MW-1 through MW-9. We also monitored one across
3 the road which was MW-16A and B.

4 Q. And then what we showed you with Exhibit
5 Number 596 was the installation of 11 through 15, is
6 that correct?

7 A. 10 through 15.

8 Q. And 10, 11, 12 are on the south and 13, 14, 15
9 were on the north, is that right?

10 A. Yes, sir.

11 Q. And/or northeast, if want to call it that.
12 Let me, I am going to show you an exhibit that I don't
13 believe was entered yesterday. It is 919. Can you grab
14 that out of your packet there. Does this look familiar
15 to you, Mr. Williams?

16 A. Yes, it does.

17 Q. Is this the type of data you provided TVA
18 engineers beginning in February of 2005?

19 A. Yes, sir. I created this graph.

20 Q. Okay. And let me ask you then to explain to
21 the Court what this is.

22 A. What this is is a, this plots the water level
23 data within those original how many ever piezometers
24 along the western face and including the additional
25 piezometers 10 through 15 on the north and south face

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1 and including the monitoring wells across the road, the
2 MW-16A and 16B. This shows sort of the rise and the
3 fall of the water levels within each of these wells with
4 regard to time. Every point is another monthly
5 measurement. Across the bottom you see the rainfall
6 that was observed by a meteorological station at site.

7 Q. You used the term or the permit used the term
8 phreatic surface earlier that you read. What does that
9 mean?

10 A. Phreatic surface is the point where
11 groundwater is equilibrated at zero pressure. It
12 typically represents the water table in the upper most
13 water table.

14 Q. When you measure water levels you are
15 measuring the phreatic surface, is that right?

16 A. Yes, sir. Some of these wells are measuring
17 shallow groundwater, which is a true representation.
18 Some of them are measuring a little bit deeper which
19 might be in different materials and might give you a
20 slightly different potentiometric, a slightly different
21 representation of the water level because it might be
22 deeper and subject to different pressures.

23 Q. These piezometers or wells that we are talking
24 about in this Exhibit 919 were all in the dikes or
25 intended to be in the coal ash dikes, is that right?

1 A. You are asking if all monitoring wells are,
2 were installed into the dike or through the dike?

3 Q. Yes.

4 A. All the monitoring wells were installed into
5 the dredge cell. Some of them, most of these were
6 installed into the dike. Some were installed in the
7 upper most surface along the top of the dredge cell
8 which wouldn't have actually been through the dike.
9 Some of them actually monitor water levels within the
10 ash. Some are within other materials, including the
11 materials of the dike itself or materials beneath the
12 ash.

13 Q. Where they were drilled was in the dikes for
14 the most part?

15 A. For the most part.

16 Q. Let's go to the last pages, the third page
17 from the end of this Exhibit 919, please. Just to
18 identify it, let's go to bates number TVK-000054313.

19 This table that we see here, or spreadsheet,
20 is this the first monitoring that was done of the levels
21 of these dikes that ended up being required by the
22 permit in April of 2005?

23 A. Well, this would have represented our first
24 monthly sampling event. We actually got a, you know,
25 the preliminary ones would have happened in January, but

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1 this was the commencement of our monthly sampling.

2 Q. Now, if we can look at the next sheet forward
3 in time, please February 24th, 2005. That is bates
4 number TVK-00054312. This is the next date you
5 monitored, is that correct?

6 A. Yes, sir.

7 Q. And just so we are clear, this document 919
8 contains all of the data for the monthly monitoring up
9 until the last time that you monitored, which was
10 November the 19th, 2008, correct?

11 A. Sorry. Just double checking the document.

12 Q. That's fine.

13 A. It appears to cover all of the data through
14 the final event, final monitoring event, November 19th,
15 2008.

16 Q. Okay, we'll come back to this document at
17 times in your testimony.

18 Just so we are clear on where the MW-13, 14
19 and 15 were located, I would like to show you what we've
20 marked as Exhibit 5461. It is -- you can either use the
21 screen or use the paper copy. It is up to you. We'll
22 blow this up so you might be able to see it better. Let
23 me know when you are there. Let's look at the screen.
24 Can you identify this as the what you call the North
25 Dike going over to the Swan Pond Road or West Dike?

(Exhibit No. P-5461 was marked for identification.)

3 A. Yes, sir. That point there is sort of the
4 northern most point of the dike. Everything to the left
5 of that is what we are calling now the western face.
6 Everything beneath that is what we are calling the
7 northern face.

8 Q. Okay. We are going to highlight the three
9 dots we see in the lower part of this exhibit. Go ahead
10 and blow up that area, including the language pointing
11 at those to the left. Now, does this drawing depict the
12 location of MW-13, 14, and 15?

13 A. Yes, sir.

14 Q. And these are the wells or piezometers that
15 you sampled on a monthly basis, among others?

16 A. Among others, yes, sir.

17 Q. And are those on the Dredge Cell Number 2
18 dike, is that correct?

19 A. Yes, sir.

Q. They are at different levels vertically of
Dredge Cell Number 2 dike on the north, is that right?

22 A. Yes, sir. I am trying to recall whether or
23 not 13 was actually on top or on the side, but this
24 drawing does indicate that it was on the side of the
25 dike. Yes.

1 Q. Okay, let's just go back to Exhibit 59, the
2 original overview that we used. Can you -- you can
3 actually use your finger on this screen and draw a
4 circle about where we just showed 13, 14 and 15.

5 A. Approximately it is -- this is a little hard
6 for me to use. It is approximately in that location.

7 Q. That's okay. Just while we are on this aerial
8 can you show approximately where the ones on the West
9 Dike were that you monitored?

10 A. There would have been essentially two
11 transects which would have been, you know, kind of --
12 you might have to grant me some leeway. This is not
13 exactly putting the lines where I intend them. There
14 was another pair of wells kind of over here across the
15 road.

16 Q. And then there were some on the south too,
17 right?

18 A. Yes, sir.

19 Q. Can you point out where those were. Okay, why
20 don't we do this. If you can take so we have a record
21 of it that we can make an exhibit, can you take the hard
22 copy of Exhibit 59 that we have here, can you take this
23 Sharpie and mark on that where 13, 14 and 15 were.

24 THE COURT: We'll get the witness to mark
25 the document and then you can display it on the DEPS.

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1 THE WITNESS: I would like to point out
2 these are not going exact. They will be approximate.

3 BY MR. DAVIS:

4 Q. We have the engineering drawing which is the
5 prior exhibit. I want to put it on this.

6 A. Just 13, 14 and 15?

7 Q. Please. Can you label that 13, 14 and 15.

8 We would like to mark this as a new
9 Plaintiff's Exhibit 5461. That is Exhibit 59 -- is that
10 our next number?

11 THE COURT: 5461 you actually showed a
12 moment ago.

13 MR. DAVIS: We can make it 59A. That is
14 probably easier.

15 THE COURT: Are you done drawing on the
16 document? Let's show it. We'll get the witness to
17 reidentify it and then we'll introduce it.

18 (Exhibit No. P-59A was marked for
19 identification.)

20 BY MR. DAVIS:

21 Q. Mr. Williams, can you having made this marking
22 on Exhibit 59, can you identify that as your marking --

23 A. Yes.

24 Q. -- and approximate location of MW-13, 14 and
25 15. Is that your writing?

1 A. Yes, sir.

2 Q. Does this to the extent that you can on this
3 aerial photograph, does this represent a reasonably
4 accurate location of 13, 14 and 15 piezometers?

5 A. Reasonably accurate.

6 MR. DAVIS: We would like to go ahead and
7 enter this as Exhibit 59A.

8 THE COURT: Any objection?

9 MR. MARQUAND: We still have the same
10 problem with 59A as we have with 59, which is the data
11 this represents as well as this witness hasn't
12 identified all these labels put on there as well.

13 THE COURT: We'll introduce, allow 59A
14 into evidence with the understanding that the witness
15 has identified everything on the document, but the
16 thrust of the document is for the witness'
17 identification of the monitoring wells 13, 14 and 15, as
18 drawn on the document. So admitted.

19 (Exhibit No. P-59A was received in
20 evidence.)

21 BY MR. DAVIS:

22 Q. Now, you didn't measure the levels in these
23 piezometers yourself every time, did you?

24 A. Not every time. We had folks associated with
25 your field engineering organization who was doing most

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1 of it. I went out myself on, you know, maybe two or
2 three occasions.

3 Q. But you relied upon the measurements made by
4 your field staff, correct?

5 A. Yes, sir.

6 Q. That is something you normally do in the
7 course of your work with TVA?

8 A. Yes, sir. We have individuals who are
9 responsible for the field work and typically I schedule
10 and organize that.

11 Q. Let me just ask you. First of all, how did
12 you measure the levels or how did your field staff
13 measure the levels in these piezometers?

14 A. To determine a water surface within a
15 piezometer well, we use two devices. One is a reference
16 point which is typically a mark on the lip of the
17 piezometer itself which will usually be the, it will be
18 like a Sharpie mark on whatever the highest point of the
19 PVC casing is where we have surveyed that and that is
20 given to be an absolute reference point.

21 We take a measurement from that to the water
22 using a device called a water level indicator which is,
23 it is a metal piece on the end of a tape reel. We
24 extend it down to the water surface and typically when
25 it contacts water it will connect the circuit on the end

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1 of that metal piece and produce a tone. That
2 measurement, whatever the depth is, is subtracted from
3 your top casing to give us the representative water
4 level within that well or piezometer.

5 Q. That is assuming you have a surveyed elevation
6 for the top of the casing, is that right?

7 A. Yes, sir.

8 Q. If you don't have a surveyed elevation to the
9 top of the casing for the top of the casing, you just
10 report a distance from the top of the casing to the
11 water, is that right?

12 A. That's correct. They will report that.

13 Typically we'll carry that forward until we get a chance
14 to survey the well.

15 Q. Okay. And in this particular case with regard
16 to 13, 14 and 15, you eventually had a surveyed top of
17 casing level, correct?

18 A. Yes, sir.

19 Q. Now, who did you report the levels to?

20 A. We reported the levels to Fossil Engineering,
21 the Fossil Engineering Department within TVA.

22 Q. And was there a particular individual, and
23 over time did that change? We'll come back to that.

24 A. There was typically one, or one to two,
25 individuals specified for us to submit the data to. We

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1 collected the data and would submit it to them. Over
2 time those individuals changed. Usually there was one
3 person assigned, told to us to be the alternate
4 recipient of the data.

5 Q. Do you know why the one person who was
6 assigned was assigned to receive the data? Did they
7 have a particular responsibility for the dikes that you
8 are familiar with?

9 A. I can't speak to who specifically, what
10 rationale Fossil Engineering had for assigning this. I
11 assume they knew.

12 Q. Did anyone ever tell you or your staff to look
13 for seeps on the dikes, when you were out there?

14 A. No one told us specifically to look for seeps.
15 Our mission out there was to gather the measurements and
16 then report back anything that was out of the ordinary.
17 This would include any changes to landscape including
18 seeps.

19 Q. Were you trained about what to look for at all
20 by TVA?

21 A. By TVA? I do not, I can't speak to the rest
22 of the field personnel, but I have seen seeps during my
23 time at the TVA at other facilities. You know, at the
24 time with personnel who had experience with that who can
25 identify it.

Q. You didn't have any specific training about what to look for, when you were on the dikes, did you?

3 A. I did not receive job-specific training for
4 that formally. Maybe some informal training, just being
5 out there with folks who had seen it. We had seen at
6 other TVA fossil plant locations we observed seepage.
7 That is usually something that we interface with
8 somewhat frequently being a groundwater issue.

9 Q. You did report it whenever you had the
10 opportunity, correct?

11 A. Yes, sir.

12 Q. Now, did you ever notice if water was ponding
13 on the top of the dredge cells, when you were out there?

14 A. I had noticed that.

15 Q. Every time you have been out there?

16 A. No. There might be some ponding typically
17 associated with when they were stacking on the dredge
18 cell.

19 Q. Now, beginning in February of 2005 there were
20 some problems with monitoring these piezometers that you
21 were charged with monitoring, weren't there?

22 || A. Problems?

23 Q. Let's go to Exhibit 1233, which is in your
24 folder, if you will bring that up, please.

(Exhibit No. P-1233 was marked for

1 identification.)

2 Q. You might look at the paper copy until we get
3 to the point we are looking at. Let me just ask you,
4 first of all, can you identify Exhibit 1233 as an e-mail
5 starting with the bottom from you to Mr. Markus Boggs?

6 A. Yes, sir.

7 Q. And that is dated November 10th, 2005,
8 correct?

9 A. Yes, sir.

10 Q. And please bring up the highlighted language.
11 This is what you are reporting to Mr. Boggs, is that
12 right? You are sending him the water levels and then
13 you are stating, if you can read on the next page the
14 sentence that is highlighted.

15 A. "Attached is the water level data that Jim
16 Overton collected at the Kingston dredge cell area last
17 week. Please note that one of the wells, 9B, could not
18 be located, as area was seemingly disturbed by a tracked
19 vehicle offloading rip-rap. Another two wells were
20 submerged, 4A and 4B. Please let us know, if you have
21 any questions or concerns."

22 Q. There were problems from the beginning with
23 the wells disappearing, is that right?

24 A. Well, there's a problem in November, many
25 months after we started, with wells disappearing, but 4A

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1 and 4B I would have to take a look at that. Those were
2 wells on top of the dredge cell more centrally located.
3 That was an issue that they were submerged, when they
4 were disposing of dredge materials up there.

5 Q. Let's go ahead and look at Exhibit 1232, which
6 is the next one.

7 (Exhibit No. P-1232 was marked for
8 identification.)

9 While you are pulling out the folder on
10 that, Your Honor, may we enter Exhibit 1233 and also
11 919.

12 MR. MARQUAND: No objection to either
13 exhibit.

14 THE COURT: So admitted, Plaintiff's 1233
15 and Plaintiff's 919.

16 (Exhibit Nos. P-919, 1233 were
17 received in evidence.)

18 BY MR. DAVIS:

19 Q. This is an e-mail from you to Mr. Boggs again,
20 is that right?

21 A. That's correct.

22 Q. Dated December 6th, 2005?

23 A. Yes, sir.

24 Q. Just so -- this is again about the data that
25 you are sending to him for these piezometers that you

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1 are monitoring the water levels for, is that right?

2 A. That's correct.

3 Q. On this one by this time in December MW-1 has
4 been buried, is that right?

5 A. That's what I reported.

6 Q. And 9B could still not be located. Is that
7 right?

8 A. That's what I reported.

9 Q. And then you also reported that 2, 3A and 10
10 had ash slurry in the well, right?

11 A. Yes, sir.

12 Q. And then 10 and 15, 10 through 15 at that
13 point had no top casing information, right?

14 A. At that time, yes.

15 Q. This was before the surveyor came out and had
16 given you that?

17 A. That's correct. In fact, I think it was this
18 e-mail that actually spurred them, spurred action
19 getting the surveyors out there, which should have been
20 out there the following month.

21 Q. And this even though you were sending this to
22 Mr. Boggs it also went to Lynn Petty, is that right?

23 A. That's correct. Again, when I refer to these
24 wells being for multi-purpose, these wells were -- the
25 primary function of our monitoring out there, you know,

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1 was for both to support this investigation dealing with
2 the lateral expansion, this permit revision, as well as
3 the hydrologic monitoring of the cell for Fossil
4 Engineering. Mr. Boggs represented former and Mr. Petty
5 was intended for the latter.

6 Q. Okay. Mr. Petty was someone you sent these
7 water levels to for several months over the course of
8 the work that you did, is that right?

9 A. Yes, sir.

10 Q. Okay.

11 A. I will point out that we, our field personnel
12 took meticulous notes of these occurrences that happened
13 to the wells. We were in most cases trying to note any
14 changes to the well to be marked with the data and also
15 for repair.

16 Q. And you can go back and look at Exhibit 919,
17 and I just ask you to do this without having to bring it
18 back up on the screen, but you generally noted in these
19 tables, spreadsheets, in the back of Exhibit 919
20 whenever a well had been destroyed or filled over or
21 filled with ash or whatever?

22 A. Yes, sir.

23 Q. Okay. And is that what you mean by your field
24 personnel would give you the information and you would
25 note it, when you made a report to Mr. Petty or

1 whomever?

2 A. Yes, sir. That was part of our to let them
3 know if conditions on the ground had changed.

4 Q. Let's keep marching forward in time here. If
5 you can look at Exhibit 1230, please. You can identify
6 this as an e-mail from you to Mr. Boggs and Mr. Petty
7 and others, correct?

8 (Exhibit No. P-1230 was marked for
9 identification.)

10 A. Yes, sir.

11 Q. And this was also about the dredge cell
12 piezometer data, as you called it. This is a date of
13 December 30th, 2005. Again, you can see on this e-mail
14 that there were problems with MW-5 is underwater. Is
15 that right?

16 A. Yes, sir.

17 Q. And MW-4A and B have been closed out. Is that
18 what that says?

19 A. Yes, sir.

20 Q. You weren't informed about this beforehand
21 were you?

22 A. No. We were just monitoring. We weren't
23 taking ownership of the wells.

24 Q. So other people were doing things in the areas
25 of the wells and weren't paying any attention to your

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1 wells, is that right?

2 A. Well, to be honest, I cannot speak to that why
3 they were closed, but, you know, one thing, one of the
4 reasons why they could have been closed, if we have a
5 well that is compromised, it's standard procedure for us
6 to go back and to close those wells properly to prevent
7 any contamination. Some of these wells are screened in
8 ash. We aren't worried about having that as a conduit
9 to groundwater since the ash that is already, since the
10 ash would be the source of any issues that we are
11 concerned about.

12 For 4A and 4B, if they had been closed for
13 some time, if they had been underwater for a little bit,
14 they would have eventually been marked for closure
15 because they are kind of less valuable for us.

16 Q. Certainly. Let me ask if you can take a look
17 at Exhibit 1251 while we're at it.

18 (Exhibit No. P-1251 was marked for
19 identification.)

20 While you are looking at that, Your Honor,
21 we would like to enter 1232.

22 MR. MARQUAND: No objection.

23 THE COURT: So admitted. What about 1230?

24 MR. MARQUAND: No objection.

25 THE COURT: So admitted.

(Exhibit Nos. P-1232, 1230 were received in evidence.)

3 BY MR. DAVIS:

4 Q. Do you have Exhibit 1251, Mr. Williams?

5 A. 1251 or 1215?

6 Q. 1251. It could have been a dyslexic label.

7 A. Yes, I do.

8 Q. Now, starting with the second page of this.
9 Look at the e-mail that is at the bottom of the first
10 going over to the second page. This is an e-mail from
11 you to Mr. Julian and Mr. Boggs, is that correct?

12 A. Yes, sir.

13 Q. Dated January 17th, 2006. Who was Mr. Julian
14 at this point?

15 A. Mr. Julian was another engineer within the
16 special projects group that dealt with the groundwater
17 and he is a, well, he is both an engineer and geologist,
18 a registered engineer and geologist. He is one of the
19 two men who were in terms of the lateral expansion
20 permit heading up that effort.

21 Q. Okay. Now, look at the sentence on Page 2
22 that is highlighted here, if we can blow it up, please.
23 Can you read that starting with "we did notice"?

24 A. "We did notice some seepage coming -- again
25 typo -- out of the side of the dredge cell in a couple

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1 of spots, about 15 feet south of MW-15. The ground
2 around the well was a gray ash mud."

3 Q. Okay, was that you that noticed it or was it
4 your staff or do you know?

5 A. Well, apparently we noticed while I was on
6 site with another member of my staff. It was one of us.
7 We reported it together.

8 Q. South of MW-15 would have been on the dike of
9 Dredge Cell Number 2 on the north side, correct?

10 A. Yes, sir.

11 Q. Okay. Just if you will go to the first page,
12 please, of Exhibit 1251. Look at the e-mail up here
13 dated January 19th, 2006, that you sent to Lynn Petty.

14 A. Uh-huh.

15 Q. And just read the second sentence of that that
16 is highlighted here.

17 A. "We probably have never noticed it flowing as
18 full as it was that morning".

19 Q. That again is referring to the seep near
20 monitoring well 15, is that right?

21 A. It appears so.

22 Q. You had noticed it before this morning of
23 January 19th, or I am sorry, the time when you visited
24 the site in January which apparently was the 17th, is
25 that right or near that time?

1 A. To be honest, I do not recall. What I might
2 have been saying there is that, you know, it might have
3 been flowing and we just noticed it because there was an
4 increased flow. It might have been flowing before and
5 it was just never a -- well as noticeable as it was when
6 it was increased flow. I do not specifically recall
7 seeing it before in that spot or else we would have
8 probably reported it earlier than this.

9 Q. Just so -- your language here certainly
10 implies that you noticed it before, correct?

11 A. The language implies that I think I was just
12 trying to come up with some explanation for why we
13 hadn't seen it before. It could also be that it wasn't
14 flowing before and I assumed that it was. I assumed
15 that we would have seen it, when we would have been out
16 there.

17 Q. I am not positive we have all your
18 communications to TVA's engineers in charge of the
19 dredge cell dikes. As of the point of time that we're
20 talking about here in January of 2006, you don't know
21 whether you reported it before or not?

22 A. I do not know. I don't recall that we did.
23 Our primary mission aside from taking measurements of
24 piezometer was looking for changes. We reported this as
25 a change. It was either a change that there was new

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1 flow or change that there was, there had been some flow
2 out there existing. At the time I was kind of surprised
3 to see the flow. The gentleman who was with me didn't
4 seem so surprised. It might be that he noticed it
5 flowing before. Certainly if it's an under drain it
6 probably should have been flowing for a while.

7 Q. Let me turn your attention back to Exhibit
8 919, please. We are going to work with that one
9 periodically. Keep it handy.

10 A. Yes, sir.

11 Q. I am going to ask you if you'll turn to the
12 table in the back that deals with January 23rd, 2006.
13 Do you have that available?

14 A. Yes, sir.

15 Q. Is that what we are looking at on the screen?

16 A. Yes, sir.

17 Q. And see down here near the bottom where you
18 have MW-15 and you have remarks over on the right. You
19 use the word "artesian." Do you see that?

20 A. Yes, sir.

21 Q. What does that mean?

22 A. "Artesian" generally means that the pressure
23 that you are monitoring, that the water pressure has
24 brought the water within the well to the ground surface.
25 That is above the ground surface.

1 Q. If you have heard the term that people have an
2 artesian well, is that what you are referring to there?

3 A. Well, we are referring to the water level
4 within the, you know, with respect to the ground
5 surface, yes.

6 Q. And so where you see that part of the column
7 it says distance to water, feet, and it says zero, that
8 means that the water is at the surface, is that right?

9 A. Yes.

10 Q. Okay. And can we go to the next page previous
11 to this. This is Exhibit 919 again, March the 2nd,
12 2006, is that correct?

13 A. Yes.

14 Q. And the monitoring well for MW-15 is artesian
15 again, is that right?

16 A. Correct.

17 Q. You noted that repeatedly throughout this
18 document. I think we'll come back to some more of those
19 in a minute. At any point did you note in this table
20 how high the casing was for monitoring well number 15 so
21 you could tell when it went artesian?

22 A. We did not note it -- let me check back at the
23 master.

24 Q. Actually if you look at December 29th, 2005,
25 if you look again at MW-15 for December 29th, 2005.

1 A. Yes, sir.

2 Q. See where it says "artesian grade is 4.72 feet
3 below RP"?

4 A. Uh-huh.

5 Q. Is that how you determine whether or not a
6 level measured in the casing of MW-15 was artesian or
7 not?

8 A. Yes.

9 Q. So anytime we have a column, a reading there
10 for MW-15 that is less than 4.72 below the surface, or
11 below the top of casing I mean, that would be artesian,
12 right?

13 A. Unless the top casing elevation changed.

14 Q. You would have noted that had it changed?

15 A. Yes. It would be noted under the TC elevation
16 column right here that changed from its current 773.37.

17 Q. We'll come back to that in a minute in terms
18 of what was artesian and what is not. I wanted to make
19 sure that we understood that part of your table.

20 If you will, go on to the April, I am sorry,
21 the March 30th, 2006 date. Let me make sure I got that
22 one right. March 14th, I am sorry, 2006 -- March 30th,
23 2006, is what I'm looking for. There it is. That is
24 2007, I'm sorry. I just wanted to point out on this
25 page for MW-15 in March of 2006 it is also artesian,

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1 correct?

2 A. Correct.

3 Q. Now, let me ask you then to look at Exhibit
4 2306.

5 (Exhibit No. P-2306 was marked for
6 identification.)

7 Q. This is an e-mail from you to Mr. Boggs and
8 Mr. Petty dated May 2nd, 2006, correct?

9 A. Correct.

10 Q. And let me go ahead and bring that up and make
11 it a little larger, please. This is also about the
12 water levels you were trying to monitor in these
13 piezometers. This shows additional problems that were
14 happening with the system. "MW-10 was apparently run
15 over." Do you recall that?

16 A. Yes, I do.

17 Q. And then you go on to say, "Jim identified a
18 couple of seepage points, either intentional or
19 unintentional, identified along the northeastern edge of
20 the dredge." Who is Jim?

21 A. Jim refers back to Jim Overton who was
22 conducting the field measurements.

23 Q. And when you say northeastern edge of the
24 dredge in this case, where do you mean? If we can turn
25 back to Exhibit 59, maybe you can show us on there.

1 A. To be honest, I don't recall where these
2 points were. I do remember us having another issue. It
3 was somewhere along the spot, but I am not sure that I
4 knew exactly where it was. If I did, I probably would
5 have given some indication. Typically we would send
6 someone out with an -- either send someone out with a
7 GPS or refer it to Fossil Engineering for investigation.
8 This doesn't, I don't see any follow-up here to indicate
9 what the follow-up was.

10 Q. You go on to say that "it looks like the
11 vegetation along the seepage is dying. This might
12 indicate that the water might be transporting something
13 out with it." What would that have been?

14 A. It could be any -- if the transport, if the
15 water was transporting something out with it, it could
16 have been any of the material from within the dike.

17 Q. Coal ash, right?

18 A. It could be coal ash or it could be material
19 within the dike itself. Some of the material within the
20 dike, some of the material that we spill has some
21 increased metals properties. It could just have some
22 more iron in it that was causing staining or
23 overwhelming the vegetation.

24 Q. The dredge cell dikes were made of coal ash,
25 right?

1 A. I can't, I don't know specifically what they
2 are made of. Typically coal ash was used at some
3 locations at Kingston. Sometimes the actual dikes
4 themselves have a large amount of background clay fill
5 material that was, you know, borrowed from either other
6 areas of the site or whatever. The different dikes
7 around Kingston have fundamentally different components
8 to them. I am not knowledgeable enough to speak to what
9 material was used in which locations.

10 Q. So going back to Exhibit 2306, when you say
11 "either intentional or unintentional," you don't know
12 the difference, do you?

13 A. Well, intentional or unintentional there are
14 several under drains out there that I think are spaced
15 out 200 feet. I don't know where the under drains are.
16 The seepage that we originally reported near monitoring
17 well 15 we identified as -- Lynn Petty came back and
18 indicated that it likely was an under drain.

19 Q. He explained it as an under drain?

20 A. Yes, there are active under drains out there.
21 They are on some regular spacing.

22 Q. Did Mr. Petty go out and look at it with you
23 and show you the under drain?

24 A. I did not go out with Mr. Petty. That is not
25 to say he or another representative didn't go out with

1 someone.

2 Q. He just sent an e-mail that said it was under
3 drain, right?

4 A. He indicated there was an under drain close to
5 it. I may or my not have actually received a map. To
6 be honest, I can't recall that far back.

7 Q. As far as this one that you identified on
8 April 27th, 2006, you have no idea whether it was an
9 under drain or not?

10 A. Yeah, I can't say whether it was or whether it
11 was not. We do know that there are some under drains
12 out there on regular spacing. That is why we felt
13 compelled to report it. We reported it because it was
14 something we hadn't noticed before. This is generally
15 referring it back to Fossil Engineering to take charge
16 of.

17 Q. Now, back to Exhibit 2306 again. You are a
18 little frustrated that your monitoring wells, your
19 piezometers kept getting destroyed, weren't you?

20 A. Yes, sir. That is kind of a fact of life at
21 industrial sites. That doesn't mean I have to be happy
22 about it, but, you know, most of the wells that weren't
23 permanently closed like the MW-4A and 4B we were able to
24 salvage some of them.

25 Q. You were struggling to keep this monitoring

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1 system going and it didn't appear that the ash handlers
2 any way had any care at all about it, right?

3 A. We were struggling to keep the integrity of
4 the system as complete as it was. You know, as we went
5 forward, you know, we had more piezometers installed out
6 there. The importance of these ones on the top of the
7 dredge cell was kind of, you know, might have been
8 superfluous.

9 Q. You are not referring to 13, 14 and 15 in that
10 regard, right?

11 A. No, I don't recall them ever sustaining any
12 major damage.

13 Q. Well, I am not asking about the damage to 13,
14 14 and 15. I wanted to make sure you weren't saying
15 they were superfluous?

16 A. No, sir. In my mind, you know, our job out
17 there is to, you know, measure these and let them know
18 about any changes, and those changes that we can help
19 aid along including repairs to the well we wanted to
20 focus on.

21 Q. Let me take you back to Exhibit 919 and just
22 to bring us up to date here. Go to the June 1st, 2006
23 levels.

24 A. Yes, sir.

25 Q. June 1st, 2006 MW-15 was artesian, right?

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1 A. Yes, sir.

2 Q. Go to the next one, June 29th, 2006. MW-15
3 was artesian, right?

4 A. Yes, sir.

5 Q. August 1st, 2006 MW-15 was artesian, right?

6 A. Yes, sir.

7 Q. September 1st, 2006, MW-15 was artesian?

8 A. Yes, sir,

9 Q. And in each of these cases it indicated that
10 the water level was above the ground?

11 A. Yes, sir. That's indicated, I am basing that
12 off of that the top casing hasn't changed and that the
13 distance to water is less than that reported value which
14 we call the "stick up" which is the extent of the PVC
15 rise above grade.

16 Q. Let's go to Exhibit 1234.

17 (Exhibit No. P-1234 was marked for
18 identification.)

19 MR. DAVIS: While we are going to that, we
20 would like to enter 2306, please.

21 MR. MARQUAND: No objection, Your Honor.

THE COURT: So admitted.

25 BY MR. DAVIS:

1 Q. Do you have Exhibit 1234?

2 A. I do.

3 Q. This is an e-mail from you to Harold Petty
4 dated September 29th, 2006, correct?

5 A. Correct.

6 Q. And if you can read the highlighted sentence
7 starting with "the spike."

8 A. "The spike in levels that we saw during our
9 September 1st visit has come back down. Please note
10 decline of levels at the toe of the dike -- we might
11 have to go out and purge the wells just in case they are
12 getting silted in. The seepage out of the northwestern
13 corner of the dike is still going steady."

14 Q. Let's start with the first sentence that you
15 read. What do you mean by spike in the water levels?

16 A. If I generally refer to a spike in water
17 levels it would be a jump up.

18 Q. Spike is not a good thing, right?

19 A. Spike is not necessarily a good or bad thing.
20 It just indicates a change.

21 Q. It means a rapid change upward in the water
22 levels in the dikes, right?

23 A. Yes. That could be indicating that they had
24 been doing some operations, some loading at the top of
25 the dredge cell, stacking operations.

1 Q. And you said it went back down during your
2 September visit. Let's go back to Exhibit 919 and let's
3 first of all show the chart, please. I know this is a
4 busy chart, but does this first page of Exhibit 919 show
5 the water levels that were measured that we have been
6 discussing in the tables in 919?

7 A. This shows -- can you repeat the question?

8 Q. Is this a graphical representation of the
9 water levels in these piezometers that we have been
10 looking at in the tables that are also part of 919?

11 A. Yes, sir.

12 Q. And so when you are talking about a spike, can
13 you just point that to the Court what you meant by a
14 spike in September of 2006?

15 A. Certainly. A spike in this case would be a
16 sudden jump in the measurements. The September 27th,
17 2006 visit should just be on your screen to the left of
18 what we see as noted by the October 4th, 2006, right in
19 there kind of to the left of that sort of that gridded
20 value going up that there is a jump up. Spike
21 typically, I refer to that as a jump in the water
22 levels.

23 If you kind of go back and you look at the
24 full scale of this what you see a seasonal trend in the
25 wet months which will typically be the start of October,

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1 give or take two weeks, through March or April, when you
2 are into the more wetter season, you know, when you are
3 into the wet part of the season. You can also see that
4 mirrored in the rain levels along the bottom. That is
5 why we post these up.

6 In fact, you can see a rather large rainfall
7 value at the end of September, which that is probably it
8 looks to be about three and a half almost four inches
9 there which is probably, which could be one factor that
10 influenced the spikes in water levels. We also saw a
11 jump when the wet season came, a little bit of increase.

12 Q. While we are on this view, the spike may have
13 come down in September, but it went back up in October
14 in a big way, right?

15 A. Yes, sir.

16 Q. And the next data that you went out and
17 observed was October 25th, 2006. You are welcome to
18 look at the data back in the table. Let's just leave
19 the graph up for a moment. See if we can work together
20 here for a minute. If you can look at the October 25th,
21 2006 comparing it to September 27th, 2006 and I want to
22 see if you agree with some of my math. That MW-2 went
23 up over two feet?

24 A. Yes, sir.

25 Q. MW-3A went up over two feet?

1 A. Yes, sir.

2 Q. MW-3B went up over one foot.

3 A. Yes, sir.

4 Q. MW-7A went up eight feet.

5 A. Yes, sir.

6 Q. MW-7B four feet?

7 A. Yes, sir.

8 Q. And MW-8A six feet?

9 A. Yes, sir.

10 Q. MW-8B, three feet.

11 A. Yes.

12 Q. MW-11 over four feet?

13 A. Yes, sir.

14 Q. 12, one and a half feet?

15 A. Yes, sir.

16 Q. And 15, which was still artesian, went up
17 three feet?

18 A. Actually 15 did not. What you see there, that
19 is a problem with my notes. If you look at MW-14 where
20 it is at 776.52 it looks that I had an error in that
21 spreadsheet that I copied down. That would be an oddity
22 that all those wells would represent the same exact
23 water level including 16A and 16B which are about a
24 thousand feet away. It looks like it was corrected the
25 next month.

1 Q. So in terms of 15 anyway, you could not state
2 that there was a spike in that case?

3 A. That is correct. I will point out that a lot
4 of these jumps up in water levels, this could be a true
5 jump up in water level or it could be that we are
6 measuring what's called a perched aquifer. Within the
7 ground you might have certain voids or certain more
8 permeable zones that if the water level, if you are
9 getting enough infiltration and the water level rises it
10 will fill up those zones. You can have essentially --
11 imagine as a drain from above that you are getting an
12 area fills up and it's draining down, and, you know,
13 where one or two locations you might have, you know, if
14 you are generally having a two feet spike everywhere and
15 you are having an eight foot spike in one location it
16 could be that is actual or it could be it's a
17 contribution from some sort of artificial function.

18 Q. If you recall, these large spikes these are
19 mostly on the west side, the West Dike, is that right?

20 A. That's correct.

21 Q. And you agree that almost all of the water
22 levels spiked up sharply during that time period?

23 A. That most of the wells have a significant rise
24 and this rise would be generally in or above what we
25 expect.

1 Q. In and above what you would expect meaning
2 what?

3 A. You're expecting a jump up with the beginning
4 of the wet season. You are expecting that to hit either
5 at the end of sometime within September or sometime
6 within October.

7 Q. Eight feet is what you would expect the water
8 level to --

9 A. No. We hadn't seen that previously. That's
10 what makes me a little suspicious that could be another
11 mechanism kind of like a perched water table.

12 Q. Do you know that week later there was another
13 blowout in the western dike of the dredge cells?

14 A. Yes, sir.

15 Q. That was November 1st, 2006?

16 A. I do not recall the specific date. It was
17 sometime during the November of 2006.

18 Q. When did you send the water levels to
19 Mr. Petty from October 25th, 2006?

20 A. I do not recall specifically when I sent them
21 to him.

22 Q. Let me ask you to look at Exhibit 1242,
23 please.

24 THE COURT: Did you want to introduce
25 1234?

1 MR. DAVIS: Yes, Your Honor. Thank you.

2 THE COURT: I assume no objection. Admit
3 plaintiff's 1234.

4 (Exhibit No. P-1234 was received
5 in evidence.)

6 (Exhibit No. P-1242 was marked for
7 identification.)

8 BY MR. DAVIS:

9 Q. Do you have Exhibit 1242 in front of you,
10 Mr. Williams?

11 A. Yes, sir.

12 Q. It's an e-mail starting out at the bottom from
13 you to Mr. Petty and also Mr. Purkey. This is dated the
14 bottom e-mail is November 2nd, 2006, correct?

15 A. Correct.

16 Q. That is when you sent the levels to Mr. Petty,
17 right?

18 A. Yes, sir.

19 Q. The day after the blowout?

20 A. Yes, sir.

21 Q. You weren't even aware that you had October
22 25th, 2005 data, were you?

23 A. Was I -- I'm sorry, can you repeat the
24 question.

25 Q. Read what you see here. "Apparently we

1 captured a data snapshot this month, even though it was
2 not planned."

3 A. Yes, sir. In terms of not being -- in terms
4 of not being planned, I believe that's referring to the
5 month before we got a round of measurements on September
6 27th. It might have been that we were supposed to go
7 out the following week and get a measurement then.
8 That's what I was expecting. It might be that I had
9 other work or other field work and our field personnel
10 or their managers had to rearrange that schedule.

11 Q. You just weren't paying attention that you had
12 gotten in a new round of water levels?

13 A. I wouldn't say it was inattention. I would
14 say we have an expectation to get regularly scheduled
15 water levels out there. I had expectation on the field
16 personnel to adhere to that schedule and that's
17 something we set up as a community. Now, I did not have
18 direct guidance over that, if it gets moved up a week or
19 back a week. You know, during this time I was doing a
20 heavy amount of field work. Typically I would be either
21 called or notified, you know, after the fact to review
22 the data and to receive the data and to send it on.

23 Q. Back in September you had noticed a spike in
24 the water levels, but you didn't notice this October
25 one, did you?

1 A. I did not comment on the October water levels.

2 Q. Obviously, you didn't send any alarm to
3 Mr. Petty saying the water levels were spiking before
4 this blowout occurred, is that right?

5 A. That would be correct.

6 Q. What was Mr. Petty's response to getting these
7 water levels from you after the blowout occurred here on
8 Exhibit 1242? What did he say?

9 A. He said, "thanks."

10 Q. Now, I want to recap up to this point in your
11 testimony that you agree that water levels, water level
12 measurements were required after the 2003 blowout to
13 prevent another blowout, right?

14 A. Per our commitment to the state, yes.

15 Q. And during 2005 and 2006 several piezometers
16 that were part of your system were filled over with coal
17 ash or run over with heavy equipment, right?

18 A. Yes, sir. Probably several of those were
19 decommissioned, potentially decommissioned. Several
20 were salvaged and rehabilitated.

21 Q. September 1st there was a spike in the water
22 levels in the dikes, right?

23 A. September 1st?

24 Q. That was what you commented on in your e-mail?

25 A. Yes, sir.

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1 Q. Came back down to a certain extent September
2 29th, as you said?

3 A. September 27th?

4 Q. I believe it was, yes.

5 A. Yes, sir.

6 Q. And shot back up on October 25th?

7 A. Yes, sir.

8 Q. November 1st the blowout occurred on the West
9 Dike and you had not provided Mr. Petty the levels prior
10 to that time from October 25th, correct?

11 A. Correct.

12 Q. He got them a day after the blowout?

13 A. Correct.

14 MR. DAVIS: Now, Your Honor, I don't know
15 if the Court is going to take a morning break --

16 THE COURT: Why don't we take a ten minute
17 break. That would be a good idea.

18 (Off the record.)

19 (Back on the record.)

20 MR. DAVIS: Before I resume examination of
21 the witness I want to see if we can enter Exhibit 1251,
22 which we previously discussed with the witness.

23 THE COURT: Any objection?

24 MR. MARQUAND: No objection.

25 (Exhibit No. P-1251 was received

in evidence.)

2 MR. DAVIS: 562 we'll reserve because of
3 the objection, but it was entered for identification
4 purposes, admitted for identification purposes. 5461 we
5 don't really need to enter.

6 THE COURT: Thank you.

7 MR. DAVIS: I have 59A that the witness
8 drew upon. He might need to use it again.

9 BY MR. DAVIS:

10 Q. Mr. Williams, I think we stopped in November
11 of 2006. I want to pick up from there. Let me ask you,
12 first of all, were there any measurements made in this
13 original piezometer system in November after the
14 blowout?

15 A. That's not reflected in the records here, and,
16 you know, I do not recall specifically that we did or
17 did not. I would assume that this is a complete record
18 though.

19 Q. So you resumed in December, according to
20 Exhibit 919, is that right?

21 A. Yes, sir. That was more than likely because
22 there was probably a lot of activity, a lot of
23 construction activity out there. We might have just
24 held off a week or two until it was safe for us to have
25 folks on site.

1 Q. That is okay. Look while you are at the
2 December 7th, 2007 table here. You see that MW-15 is
3 artesian even though you didn't designate it as such,
4 correct?

5 A. Yes, sir.

6 Q. Because it's, 2.71 is less than 4.72, correct?

7 A. Yes, sir.

8 Q. And we also have on this one, 16B, artesian as
9 well, do we not?

10 A. That's correct. It is very often that 16B is
11 artesian. I will point out that 16B is one of the wells
12 across the road that receives recharge off the pine
13 ridge. We would, you know, historically we have seen
14 that well be artesian.

15 Q. On this same table that we are talking about
16 4A and 4B are gone, right?

17 A. Yes, because they were closed.

18 Q. Right. Then we have 5A, 5B, 6A, 6B
19 inaccessible, water filled cells. Is that your
20 designation of those now?

21 A. Yes, sir. Most of those wells, they were not
22 submerged, but they were inaccessible because they were
23 out in the middle of the pool at the top of the dredge
24 cell.

25 Q. 9B is closed?

1 A. Yes, sir.

2 Q. And 10 is run over?

3 A. Yes, sir.

4 Q. While we are at it, let's go to the January
5 9th, 2007 page in Exhibit 919. That is bates ending
6 with 54293. Do you have that?

7 A. Yes, sir.

8 Q. Here you have eliminated 5A and 5B now, is
9 that right?

10 A. Yes, sir.

11 Q. And 6A and 6B are ash covered?

12 A. Yes, sir.

13 Q. And 15 is still artesian, right?

14 A. Yes, sir.

15 Q. 10 is still run over?

16 A. Yes, sir.

17 Q. Go on to February of 2007. There were no
18 measurements at all for 5A, 5B, 6A, 6B, 10, correct?

19 A. Correct. Likely by this time 5A, 5B, 6A, 6B,
20 they were with the disposal stacking operation on top.
21 They might have been -- you know, every time they
22 stacked they have to raise the level of the well. At
23 some point they were likely closed because they, you
24 know, there wasn't any value in keeping it, you know,
25 and having that.

1 Q. No one ever consulted with you about that,
2 right? It just got filled over?

3 A. No, sir, not that I can recall.

4 Q. Now, looking on up to March 14th -- I am
5 sorry, before you leave February 7th, 15 was still
6 artesian, right?

7 A. Yes. The water levels are down close to
8 ground surface though.

9 Q. But it is still above?

10 A. Yes, sir.

11 Q. Okay, now, go on to March 14th and previous
12 page. The same wells are still unmonitorable that we
13 talked about in January or February. Now 15 is still
14 artesian, right? March 14th, 2007?

15 A. That's correct.

16 Q. April 3rd, 2007, 15 is still artesian,
17 correct?

18 A. The value of the stick up was 4.72, correct?

19 Q. I do recall that. You agree with that don't
20 you?

21 A. If that's what I indicated, that's what it
22 was. This would still be artesian.

23 Q. Still no 5A, 5B, 6A, 6B or 10?

24 A. That's correct.

25 Q. And go on to May 4th, 2007. 15 is still

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1 artesian, right?

2 A. Yes, sir. Just above.

3 Q. So certain things happened after the November
4 1st, 2006 blowout and you have described some
5 construction activities. Another thing that happened is
6 there were additional piezometers installed on the West
7 Dike to expand the monitoring network, is that right?

8 A. Yes, sir, the subcontractor that they hired to
9 come in and to evaluate the site had apparently
10 installed a number of piezometers along, you know, along
11 the Swan Pond Road, sort of the western face.

12 Q. I am going to ask you to look at Exhibit 285,
13 please. If we can bring this up.

14 (Exhibit No. P-285 was marked for
15 identification.)

16 Do you recognize Exhibit 285, Mr.
17 Williams, as the Swan Pond Road side of the dikes and
18 the location of the piezometers that were installed
19 here?

20 A. That would appear to be what we are looking
21 at.

22 Q. I am not going to ask you to identify them
23 specifically because there is a bunch of them. Were
24 there over 50 all together that were installed at one
25 time?

1 A. That sounds like it is in the ball park.

2 Q. Let's bring Exhibit 59 back up, please. Just
3 so we can get you to show the Court where these
4 additional piezometers were located. Let's don't --
5 okay, why don't we do this. Take 59A and go ahead and
6 indicate with a pen on 59A where the additional
7 piezometers were installed after November, 2006. Just
8 in a general location on the West Dike.

9 A. In a general location.

10 Q. Yes.

11 A. Okay. Again, all these are going to be
12 approximate because I never walked down these wells. I
13 saw them, you know, from somewhat of a distance. I
14 might have, you know, we might have had pictures out
15 there.

16 Q. If I had something better, I would give it to
17 you. If you can like on Exhibit 59A, Mr. Williams, can
18 you identify the circle you drew on the West Dike of
19 Dredge Cell 1 and 3, Mr. Williams, on this photo?

20 A. Yes, sir, it would be essentially along Swan
21 Pond, the face of the dredge cell.

22 Q. And you wrote this "additional wells installed
23 post 2006 blowout" on here, right?

24 A. Yes. I'm kind of using wells and piezometers
25 interchangeably there. They are, I guess they are

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1 actually designated piezometers.

2 Q. They were only used for measuring water
3 levels, correct?

4 A. Yes. Now, there were some that we are used
5 for drainage.

6 Q. We may talk about those in a minute. As far
7 as you know, where there is a label on Exhibit 59A that
8 says "slope issues 2003 and 2006 location" is that the
9 approximate location of the blowouts in 2003 and 2006?

10 A. I can't really testify knowledgeably to that.
11 I knew it was, the approximate location was marked by
12 the transect of piezometers. I believe it's MW-1
13 through MW-4 was along the approximate area of 2003. As
14 far as 2006, I did not know that I was out there to see
15 when it had blown out or when it had been repaired.

16 Q. I appreciate that. Let me turn your attention
17 to the May 2007 time period. You were out there
18 sometime in May of 2007 weren't you?

19 A. I do not recall specifically. I was out there
20 likely at some point during 2007.

21 Q. If I can ask you, please, to look at Exhibit
22 1243. If you would look at the first e-mail in this
23 chain from you to Mr. Petty dated May 6th, 2007. Is
24 that your e-mail?

25 (Exhibit No. P-1243 was marked for

1 identification.)

2 A. Yes, sir.

3 Q. Mr. Petty replied to you the same day. If you
4 will expand the first highlighted paragraph. This
5 indicates that you had been out in May of 2007 and that
6 you noticed these new piezometers on the West Dike, is
7 that right?

8 A. That's correct. I think I was out there
9 actually doing work at the Peninsula site. I had just
10 kind of driven by on Swan Pond and saw additional
11 piezometers. I asked if that was something that we
12 should be picking up as well.

13 Q. At that point did you know if anyone else was
14 monitoring those or had you been told about those being
15 installed even?

16 A. I knew that there was some work going on out
17 there. I did not know what specific work was being done
18 or who was monitoring those wells or what frequency.

19 Q. And so you asked Mr. Petty if he would like
20 for your team to monitor those new piezometers that were
21 part of the water level monitoring system and he said
22 no, not for now.

23 A. Correct.

24 Q. Did you have any further discussion with him
25 about who was doing it at the time and the cost of it or

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1 anything like that?

2 A. No, not at this time. You know, we figured
3 that they would come back to us if they wanted us to --
4 you know, we extended the offer. They knew we were
5 going out there any ways. You know, we figured that
6 they could call us, if they wanted to take advantage of
7 that.

8 Q. Let me ask how things worked within TVA about
9 the monitoring level system, the water level monitoring
10 system you were performing. Did you get paid by another
11 part of TVA to do that?

12 A. In terms of how we got -- in terms of who was
13 paying us at the outset, and it changed a couple of
14 times throughout the life of the monitoring from 2005 to
15 2008, but at the outset our funds were coming through
16 Fossil Engineering. Now, whether they were generating
17 those funds or if they had given us account numbers that
18 tied back to the plant, I can't give a knowledgeable
19 answer to that.

20 Q. You were a service organization within TVA.
21 You go -- you are almost like an outside contractor in
22 that respect. You go where you get paid, right?

23 A. Yes, sir.

24 Q. And if someone had, if you weren't paid to do
25 this water level monitoring you wouldn't do it?

1 A. Generally that's correct. I know that there
2 is a couple of times at the start when -- our fiscal
3 year for the federal government goes on October through
4 September cycle. There was at least one, and maybe two
5 occasions, where we didn't have funding in place in
6 October, that we went ahead and went out there and got a
7 snapshot any ways.

8 Q. You have even seen the e-mails back and forth
9 about who is going to pay for it. People seem to want
10 to pass it to the other department. Is that now how it
11 normally works?

12 A. Yes, sir, there is some negotiating back and
13 forth for certain on that.

14 Q. I won't go into the details about that. I
15 noted that in your e-mail chain.

16 Let's go to Exhibit 1215. While you are doing
17 that -- Your Honor, I would like to enter Exhibit 1243.

18 MR. MARQUAND: No objection Your Honor.

19 THE COURT: So admitted.

20 (Exhibit No. P-1243 was received
21 in evidence.)

22 (Exhibit No. P-1215 was marked for
23 identification.)

24 BY MR. DAVIS:

25 Q. I am just showing you Exhibit 1243 to ask you

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1 if -- this is an e-mail from you to Mr. Petty dated July
2 18th, 2007, is that correct?

3 A. Yes, sir.

4 Q. 1215, I am sorry.

5 A. 1215 does appear to be an e-mail from me to
6 Lynn Petty from July 18th, 2007.

7 Q. And just so we are clear about this. You are
8 sending Mr. Petty at this time each month the dredge
9 cell piezometer attachment to an e-mail. Is that how
10 you are doing it?

11 A. Yes, sir.

12 Q. And we have been talking a lot about Exhibit
13 919, which is the color chart with the tables behind it.
14 Is that essentially the dredge cell piezometer, KIF
15 dredge cell piezometer master sheet?

16 A. I believe so, yes, sir.

17 Q. In this particular e-mail you also sent him
18 something regarding Peninsula water levels. That is
19 another site we are not really going to be dealing with
20 in this case, is that right?

21 A. Yes, sir.

22 Q. All right. Let's go back to Exhibit 919 since
23 you have it in front of you. Just look at the July 5th,
24 2007 table in the back. For that one MW-15 was
25 artesian, right?

1 A. Yes, sir.

2 Q. Okay. Also while we're at it, let's look at
3 Exhibit 1196.

4 While were doing that, if we may move in 1215.

5 MR. MARQUAND: No objection, Your Honor.
6 We don't nave have any objection to 285, if counsel is
7 tendering that as well.

8 MR. DAVIS: We'll go ahead and tender 285
9 as well.

10 THE COURT: 285 is admitted. 1215 is
11 admitted.

12 (Exhibit Nos. P-285, 1215 were
13 received in evidence.)

14 BY MR. DAVIS:

15 Q. If you look at 1196, please. You see that
16 again you are sending this each month to Mr. Petty. Is
17 that correct?

18 (Exhibit No. P-1196 was marked for
19 identification.)

20 A. That's correct. For a long period of time we
21 were sending it either primarily to either Lynn or to
22 Lynn and additional personnel.

23 Q. And let's go ahead and pull up 1194 while we
24 are at it. This is just another one that shows you were
25 still sending these to Lynn Petty, right?

(Exhibit No. P-1194 was marked for identification.)

A. That's correct.

4 MR. DAVIS: I would like to move in 1194
5 and 1196, Your Honor.

THE COURT: Any objection?

MR. MARQUAND: No objection.

THE COURT: So admitted, 1194 and 1196.

11 BY MR. DAVIS:

12 Q. At some point in time, and we can pin it down,
13 your team began monitoring these additional piezometers
14 that were installed on the West Dike after November of
15 2006, right?

A. That's correct.

17 Q. And do you recall when that was, the first
18 month that you began doing that?

19 A. Specifically I do not recall, but it would
20 have been probably sometime around November of 2007,
21 give or take.

22 Q. Okay. Now, did you understand at that point
23 in time that GeoSyntec, a consultant to TVA, had been
24 monitoring those piezometers before your team took them
25 over?

1 A. I knew at the time that someone had been going
2 out there and monitoring. I don't recall specifically
3 if we were told GeoSyntec would, you know, it might have
4 come up. It probably came up at the time.

5 Q. Do you know who GeoSyntec is?

6 A. Yes.

7 Q. Are they a consultant that works for TVA in a
8 number of places?

9 A. They are a consultant that works for TVA and
10 they work at at least two fossil plants, I know.

11 Q. You do know why your team took over monitoring
12 from GeoSyntec?

13 A. I believe there was certain economies.

14 Q. To save money, right?

15 A. To save money.

16 Q. And you sent your team out to monitor those
17 beginning around November of 2007, is that correct?

18 A. Yes, sir.

19 Q. And when you were doing that you were also
20 still monitoring the same system that had begun in 2005?

21 A. Yes, sir.

22 Q. Minus those piezometers that had been
23 destroyed, run over, filled up, whatever?

24 A. Yes, sir.

25 Q. So you, were you ever given the GeoSyntec

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1 chart or software for plotting the levels for those new
2 piezometers on the western dike?

3 A. No, sir. The only software that we dealt with
4 were the spreadsheets that we sent to them. Most of
5 this data would have come in to me certainly through
6 most of 2007 in paper form from folks in my office or
7 via e-mail. I would have transferred it over to this
8 sheet and sent it on to Fossil Engineering.

9 Q. This transition between GeoSyntec and the TVA
10 monitoring didn't go very well, did it?

11 A. I don't think I understand the question.

12 Q. Let me show you Exhibit 4398, please.

13 (Exhibit No. P-4398 was marked for
14 identification.)

15 Q. This is an e-mail from you to Paul Smith dated
16 October 17th, 2007. Who is Paul Smith?

17 A. Paul Smith was a former TVA employee who came
18 back to work for TVA as a contractor. He lived in the
19 Kingston area and we utilized him for these monthly
20 measurements from a period from sometime in 2007 until
21 we finished, until the failure of the dredge cell.

22 Q. When you took over this new system on the
23 western dike, the piezometers were not labeled, right?

24 A. I can't recall specifically that they were
25 labeled or they were not. I know that there was at

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1 least initially some confusion and we had to make a
2 special trip out there -- I can't remember if we had a
3 Fossil Engineering with us, that Paul made a special
4 trip out there to double check that we had a specific
5 counting of each piezometer and that matched up with the
6 maps that we received from them.

7 Q. Exhibit 4398 you say, "there is no marking
8 system for those well points and piezometers out at
9 Kingston."

10 A. That's correct.

11 Q. You wouldn't know what you were monitoring
12 without a marking system, right?

13 A. Or a map to tell us.

14 Q. Okay. And it took you a couple of months to
15 sort that out, didn't it?

16 A. From what I recall, you know, we would have
17 taken over -- my memory on dates might be off a little
18 bit -- sometime around November of 2007. It might have
19 been October of 2007. We had Paul go out there and if
20 they weren't marked at the time -- eventually there was
21 a, they were all marked by Sharpies that they had taken
22 and written on the side of the well. I know Paul
23 indicated that to me. We were still monitoring because
24 we had, when we began monitoring we started monitoring
25 because we finally understood which wells were

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1 designated which. Eventually, some months later, it
2 probably would have been early 2008, we changed to a
3 permanent monument. I think we had metal tags out
4 there.

5 Q. For most of the time though it was just a
6 magic marker or Sharpie written on a piece of PVC pipe,
7 right?

8 A. It would have been probably several months
9 there at the end of 2007.

10 Q. Just so we are clear how long it took you to
11 get that straightened out, go to Exhibit 1204, please.

12 (Exhibit No. P-1204 was marked for
13 identification.)

14 THE COURT: Let's go ahead and without
15 objection introduce 4398.

16 MR. DAVIS: Thank you.

17 (Exhibit No. P-4398 was received
18 in evidence.)

19 BY MR. DAVIS:

20 Q. Exhibit 1204 you recognize this as an e-mail
21 from you to Mr. Petty, correct?

22 A. Yes, dated January 2nd, 2008.

23 Q. And you are telling him that you finally got
24 everything labeled as of November, is that right?

25 A. That's correct.

1 Q. This took about two months to get that
2 straightened out, is that right?

3 A. Again, off the top of my head I do not
4 remember when we started monitoring out there. That
5 exchange between Paul and myself was in October of 2007.
6 I can't recall whether we started monitoring in October
7 of 2007 or November of 2007. It might be that we went
8 out the month ahead to, you know, make sure we had all
9 our ducks lined up to, you know, had a job walk down to
10 make sure we knew what we were doing.

11 Q. For those on the west side, the new ones, the
12 new piezometers that came after the November, 2006
13 blowout, you didn't have elevations or top of the casing
14 elevations for those piezometers, right?

15 A. We did not have top casing elevations for the
16 piezometers, that's correct.

17 Q. All you reported was the depth of the water
18 below the top of the casing, is that right?

19 A. Yes. That's correct. You know, again, with
20 the monitoring wells 10 through 15 there that as long as
21 those reference points hadn't changed that once we got
22 survey information we can kind of back apply that.

23 Q. I am talking about the new system.

24 A. Yes.

25 Q. Some 50 piezometers and well points on the

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1 western dike, you never were given the elevations of
2 those, were you?

3 A. We were never given -- as long as we trusted
4 that, or figured that the Fossil Engineering would have
5 all that information. What was important was that we
6 got the measurements and got them, you know, on period
7 and got them to them.

8 Q. Contrary to the original piezometer system
9 that included numbers 13, 14, 15, the new system all you
10 reported were the difference between the top of the
11 casing and the water level, is that right?

12 A. Yes, sir.

13 Q. And so you really didn't know what the water
14 levels were for the new system on the west?

15 A. I did not and my group did not, but, you know,
16 we weren't, you know, we weren't required to track the
17 water levels. We were required to turn in the data.

18 Q. Okay. If you can look, please, at Exhibit
19 1181.

20 (Exhibit No. P-1181 was marked for
21 identification.)

22 And if you will turn, first of all, to the
23 second page. This is an e-mail from you to Mr. Petty
24 dated April 28th, 2008.

25 A. That's correct.

1 Q. Can you read what that says, please.

2 A. The highlighted portion?

3 Q. Yes. I'm sorry. If you go to the whole
4 portion starting "Lynn."

5 A. At the bottom last one or second to the last
6 one?

7 Q. That one.

8 A. "Lynn, attached is the raw data for the April
9 update for the Kingston dredge cell update. This is the
10 second month that we have been to the site where the
11 well points have been actively draining. As a result,
12 over a dozen piezometers at the toe of the slope are
13 dry. No information was again collected for the well
14 points themselves, as they were actively draining.

15 Please let me know if you have any questions or
16 concerns."

17 Q. So let's make sure we understand what you mean
18 by that. The well points were piezometers, is that
19 right?

20 A. The well points were essentially piezometers
21 that were set up where they are allowed to freely drain.

22 Q. And meaning that when you say "freely drain"
23 the water was coming up out of the ground out the top of
24 these piezometers, right?

25 A. Yes, sir.

1 Q. And are you saying that whenever your team
2 went out and saw the water coming up on out of the
3 ground out of these piezometers that you didn't make any
4 measurements?

5 A. Make any measurements for what?

6 Q. You didn't report any data for those
7 piezometers that had water coming up out of the ground?

8 A. The water that was coming up out of the ground
9 we wouldn't get any really any value out of these
10 measurements to get a true static level. They would
11 have to be, they would have to be closed off so we could
12 measure them, and as I was under, you know, since they
13 were the draining piezometers and not the toe of the
14 slope ones, you know, I am not sure how important it was
15 to get an active measurement out of it.

16 We had been out there a number of times where
17 it was, where they were freely draining, and, you know,
18 we were never asked to go back so no one every told me
19 explicitly, but I assume the value of that particular
20 grouping of piezometers was probably less important.

21 Q. Did anyone ever comment that they wanted you
22 to even indicate whether there was a water level coming
23 out of the ground in those piezometers?

24 A. I don't know if anyone explicitly indicated as
25 such. Whatever data we could collect in the field, we

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1 were going to collect in the field.

2 Q. So when you collected the data you at least
3 indicated that the water levels were coming up out of
4 the ground, right?

5 A. If those draining piezometers were draining,
6 we tried to indicate that they were draining and that we
7 couldn't get a reasonably accurate picture, a reliable
8 snapshot I should say.

9 Q. Let me take you to an exhibit -- just so we
10 understand what we are looking at, can you go to 2841,
11 please.

12 (Exhibit No. P-2841 was marked for
13 identification.)

14 MR. DAVIS: Let's go ahead and enter 1181.
15 I will come back to it.

16 THE COURT: We'll admit 1181 as well as
17 1204, both e-mails.

18 (Exhibit Nos. P-1204, 1181 were
19 received in evidence.)

20 BY MR. DAVIS:

21 Q. If you can look at 2841 and identify that,
22 please.

23 A. 2841 is a hydro graph showing the dredge cell
24 slope piezometers. These are piezometer along the toe
25 slope of the Kingston dredge cell along Swan Pond. This

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1 shows our monthly measurements from what appears to be
2 November of 2007 until July, 2008.

3 Q. And is this the kind of information that you
4 sent to Mr. Petty regarding those dredge cell toe of
5 slope piezometers?

6 A. Yes, sir. Primarily what I sent to Mr. Petty
7 were two things. One is the raw measurements that we
8 made and that is essentially the data that they asked
9 for. That extends back to those earlier piezometers and
10 wells before.

11 The second thing is this hydro graph which I
12 put together on my own for ease of reading for him if he
13 wanted to, if anyone wanted to make a quick check. This
14 was not requested by anybody.

15 Q. Okay.

16 MR. DAVIS: Let's go ahead and enter 2841,
17 please.

18 MR. MARQUAND: No objection.

19 THE COURT: So admitted.

20 (Exhibit No. P-2841 was received
21 in evidence.)

22 BY MR. DAVIS:

23 Q. Let's turn to one that appears to be complete
24 for all the measurements you made. This is Exhibit
25 1667. If you can find that in your stack. I want to

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1 dwell on this a few minutes like we did 919.

2 (Exhibit No. P-1667 was marked for
3 identification.)

4 Q. Exhibit 1667, is this a similar graph and
5 tables like we were just talking about in 2841?

6 A. Yes, it appears similar.

7 Q. And this one would have complete data up to
8 and including November, 19th, 2008, is that right?

9 A. It appears so.

10 Q. Now, going back to this question that we were
11 discussing a few minutes ago in April of 2008 about the
12 well points draining and what kind of indication was
13 made of that. If you can turn to the TVK-000332235 page
14 of Exhibit 1667. It is actually the second to last
15 page. Is this a table that would have been used for
16 indicating the depth of water for the well points in
17 this recording that you did?

18 A. Yes, sir.

19 Q. And for March, 2008, April 2008, May, 2008,
20 June 2008, July, 2008 on this particular page you did
21 not measure any data, correct?

22 A. That's correct. As I recall, most of the, you
23 know, most of the time those drains were actually open
24 and functioning. We had tried to schedule it where, and
25 Fossil Engineering had indicated they tried to get every

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1 other drain open so we can get an active measurement.
2 That didn't always sync up in terms of that function
3 being performed ahead of our monitoring which might have
4 just been, you know, either issues in communication or
5 issues in schedules.

6 Q. I didn't mean you to launch into a long
7 question about that. My question was simply you didn't
8 measure any data during those months, right?

9 A. We did not.

10 Q. And you said "told Paul Smith to skip event."
11 Was that you told him to?

12 A. Yes, we were -- I relayed a message from
13 Fossil that, you know, we would go ahead and get it next
14 time because we can't get valid data out of that. We
15 were never asked to go back, you know, the following
16 week or another time to pick that data up.

17 Q. If you look at the next page of Exhibit 1667.
18 This also occurred in September of 2008, correct?

19 A. Yes, sir.

20 Q. And read what it says down there at the
21 bottom.

22 A. "Well points were draining--a mix-up in
23 communication. Paul Smith will swing by to close valves
24 early next time." At that point they told us that we
25 can open and close the valves.

1 Q. What do you mean by "valves"?

2 A. The way that -- these drains had like a "T" on
3 them that, you know, if you imagine where ground surface
4 was and that this is a PVC riser sticking out of the
5 ground surface, there would be a "T" close to where the
6 ground surface was. These were to, the main function of
7 these piezometers were to be drains that they could open
8 that drain and it would flow freely. If they chose to
9 close it, the water would equilibrate within the
10 piezometer and rise to a level that would give us an
11 indication of the hydrostatic pressure within that
12 piezometer. We can actually get a measurement from the
13 top of the casing down to the water. If the wells are
14 draining, we can't get any sort of viable reading.

15 Q. You are not a hydrologist, as I recall?

16 A. No, sir.

17 Q. Or a hydro geologist?

18 A. No, sir.

19 Q. You had no idea how opening or closing valves
20 would affect the water levels in the dikes, did you?

21 A. By my training and by my experience, I did
22 know we could not get a viable reading with it open.
23 You know, and in terms of Paul being out there and
24 trying to get those readings, you know, I told him and
25 based on conversations with Fossil Engineering that, you

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1 know, we would go ahead and skip those, if they were
2 draining.

3 Q. I am just focused on the system on the West
4 Dike, the new system on the West Dike at this point.
5 Closing half or opening some and not others, you had no
6 idea how that would have affected the accuracy of any
7 readings you got, right?

8 A. No. It is, you know, it is reasonable to
9 expect, you know, these things for the drains were
10 fairly tightly spaced, but they weren't, you know, so
11 closely spaced that we should get a large deviation from
12 if they are all closed off. When we started out we
13 tried to get measurements when they were all closed, but
14 that, at that point it was deemed by Fossil Engineering
15 to be good enough, if we got every other one. In terms
16 of influence, you know, wouldn't expect there to be a
17 large influence from one well to the next if one was
18 draining and one was not.

19 Q. Do you have any idea how the engineers you
20 were sending these levels to interpreted your indication
21 on here that you didn't take any data or you didn't
22 measure any levels?

23 A. I never received any feedback or instruction
24 on exactly how they were handling it. You know, all we
25 could do were, you know, tell them that we couldn't get

1 it during that event or indicate why we couldn't get it
2 and ask if they want us to go back and make a follow-up
3 visit, when we could close the drains.

4 Q. I want to turn your attention to an exhibit
5 entered in this case. It should be on your table. It's
6 called Exhibit 606 and has color charts on it. Do you
7 have it?

8 A. Yes, sir.

9 Q. We have been talking using this master list,
10 which is Exhibit 1667, about the months of March, April,
11 May, June, July, September of 2008 with regard to well
12 point levels. Can you -- I want to, first of all, give
13 you a predicate for this. I want you to assume that
14 this is the way that the engineers you were sending the
15 data to interpreted the data, by putting it into some
16 software that GeoSyntec provided to them. That has been
17 the testimony thus far. I would like you to turn, if
18 you will, to the months that we just mentioned in
19 Exhibit 606 starting with March of '08. Do you see
20 that? It would be the fourth page, I believe, fifth
21 page.

22 A. Yes, sir, 813.

23 Q. Yes.

24 A. Yes, sir.

25 Q. How did, if you look at the "WP"s that means

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1 well point, is that right?

2 A. Yes, sir.

3 Q. That is how they are indicated?

4 A. "WP" for well point, "PZ" for piezometer.

5 Q. Whereas, you had reported to engineering that
6 the well points were actually overflowing out of the
7 ground in March of '08, how did engineering report them
8 in this table?

9 MR. MARQUAND: Objection. The document
10 speaks for itself. The witness yesterday testified to
11 it. This witness has no personal knowledge of that.

12 THE COURT: You want to ask him if he
13 does?

14 BY MR. DAVIS:

15 Q. You can see here on this Exhibit 606 that the
16 term that was indicated in the table was "dry," is that
17 right?

18 A. That is the term indicated in the table. I
19 don't know how to interpret that, what their use of that
20 term indicates.

21 Q. Dry is the opposite of wet, is it not?

22 A. Generally, yes.

23 Q. And so instead of the well points being
24 indicated by the engineers as flowing out of the ground,
25 if they indicate dry, that would mean the opposite,

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1 correct?

2 A. You would think so. I have no knowledge of
3 this software and in terms of its applications it might
4 be that that is what you are supposed to do when you use
5 it. I can't knowledgeably speak to this.

6 Q. I wouldn't ask you to go through those other
7 months, but the document speaks for itself. Where you
8 indicated the well points overflowing, they indicated
9 dry. If you want to look at it to confirm that, that is
10 fine. Will you take my word for that?

11 A. How about I take that as your interpretation
12 of that.

13 Q. That is fair enough. Thank you.

14 I don't know if I asked about this already.
15 Exhibit 1181, if you can turn to that, please.

16 (Exhibit No. P-1181 was marked for
17 identification.)

18 I think we were talking about it before.
19 I don't believe we entered it yet.

20 A. We did discuss it before?

21 Q. I think we did. We were talking about the
22 second page of it. I appreciate you being better
23 organized than me.

24 A. Let's see. Yes, sir. Sorry about that.

25 Q. Okay. If you will turn to the second page of

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1 1181 again. Look at the top e-mail there. This is an
2 e-mail from you to Lynn Petty April 28th, 2008. Can you
3 read that, please.

4 A. Yes, sir. "Lynn, sorry for any confusion.
5 'Run over' should be synonymous with 'destroyed.' It
6 seems fairly predictable that each time we go out, we'll
7 find one or two piezometers as having encountered some
8 sorry of heavy equipment. There have been a couple of
9 times that toe of slope piezometers were found to be
10 'artesian', though not of recent record.

11 We will take care from this point forward to
12 clear any ambiguity within our reporting. If there is
13 any way that we can improve what we collect or how we
14 present it, please do not hesitate in letting me know."

15 Q. Are you saying there were a number of
16 piezometers on this new system on the west side of the
17 dikes that were also being destroyed by heavy equipment?

18 A. Yes, sir. There was multiple piezometers that
19 were being destroyed which appeared, and I am reporting
20 this second hand, to be largely from mowing operations
21 or from heavy equipment that was placing rock and
22 rip-rap and when we encountered this all we could do is
23 report this to the customer and either typically expect
24 some indication that that was okay or whether that they
25 were going to fix it or we were directed to fix it.

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1 Sometimes it can be fixed, sometimes not.

2 Q. Obviously if you have a piezometer destroyed
3 or mowed over, that means it is no longer an effective
4 part of the monitoring system, correct?

5 A. That's correct. There was a large number of
6 piezometers out there on a very tightly gridded system.
7 Given the location of the piezometers and given the
8 number and spacing of them, I think that they were kind
9 of over, that they were compensating for the eventual
10 destruction of several. That's the only reason I can
11 think they would have so many piezometers out there.

12 Q. Were you ever told that or was that your
13 supposition?

14 A. That was my supposition based on experience.

15 Q. You thought it was important to monitor every
16 one of them that was out there, right?

17 A. We were paid to monitor every one that was out
18 there.

19 Q. You thought it was important too?

20 A. I thought it was important that we got
21 everything that we could. You know, our role in this
22 was to collect the data. If there was going to be a
23 shortcoming in the data, it wasn't going to be on our
24 shoulders.

25 Q. Just so we know how many actually were

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1 destroyed, we'll come back to that.

2 Let's go ahead and enter Exhibit 1181, please.

3 THE COURT: So admitted.

4 (Exhibit No. P-1181 was received
5 in evidence.)

6 BY MR. DAVIS:

7 Q. Please look at 2833 while we are at it.

8 (Exhibit No. P-2833 was marked for
9 identification.)

10 Q. Let's start with the first e-mail on the third
11 page. Let me ask if you recall, first of all, that Lynn
12 Petty left the Engineering Design Services Group in
13 early '08?

14 A. Yes, sir.

15 Q. And you know that he turned over the
16 responsibility for receiving this data from your
17 department, your team, to Mr. Christopher Hensley?

18 A. Yes, sir.

19 Q. And that is what this e-mail here May 27th,
20 2008 is from Christopher Hensley to you, correct?

21 A. That's correct.

22 Q. And he told you he is leaving as well, right?

23 A. Yes, sir.

24 Q. Do you know how many months he received this
25 data and was responsible for it?

1 A. I don't recall specifically. It wasn't very
2 long.

3 Q. Turn to the next page in this e-mail, if you
4 will, please. Looking at the e-mail starting with at
5 the bottom here from you to Mr. Dotson. Mr. Jamey
6 Dotson, he was the contact whom Christopher Hensley
7 referred you to, wasn't he?

8 A. Yes, sir.

9 Q. Was he also in Engineering Design Services?

10 A. At the time, yes.

11 Q. Okay. Going up to the next e-mail, June 24th,
12 2008, Mr. Dotson told you he is leaving as well?

13 A. Yes, sir.

14 Q. And so then if you will please go on to the
15 next page, the first page, you ended up getting referred
16 to Mr. Kimsey for a period of time, right?

17 A. Yes. Jamey was I believe during this time
18 still the primary recipient of the data. He had been
19 out on leave. I was to cc Barry in the intermediate,
20 Barry Kimsey in the intermediate.

21 Q. Do you know what Mr. Kimsey's position was?

22 A. I knew just by the signature of his e-mail
23 that he was one of the managers down there.

24 Q. Then he referred you to Mr. Chris Buttram, is
25 that correct?

1 A. Yes, sir.

2 Q. So over the course of about four months in
3 2008 Mr. Petty told you he was leaving, to send the
4 results to Mr. Hensley, is that right?

5 A. That's correct.

6 Q. And Mr. Hensley in May --

7 MR. MARQUAND: Objection. This is
8 cumulative and totally repetitious of what we just went
9 over.

10 THE COURT: I will allow some summation.

11 MR. DAVIS: I am trying to make it simpler
12 rather than going through the e-mail.

13 BY MR. DAVIS:

14 Q. In May of 2008 Mr. Hensley told you he was
15 leaving, to send the results to Mr. Dotson, correct?

16 A. That's correct.

17 Q. In June of 2008 Mr. Dotson told you he was
18 leaving, to send the results to Mr. Buttram, is that
19 right?

20 A. In June?

21 Q. July, Mr. Kimsey told you that, right?

22 A. Yes.

23 Q. And then beginning with the August results, in
24 August of 2008 you sent those to Mr. Buttram, is that
25 right?

1 A. It would have either been July or August, yes.

2 Q. We'll come back to an e-mail on that.

3 Did any of these engineers from Mr. Petty down
4 to Mr. Buttram ever discuss the results with you or
5 comment on them?

6 A. No. The scope of our communications was
7 typically limited to either timing or to the conditions
8 of the site.

9 Q. You had no idea of whether or not they were
10 even looking at the results you sent them, did you?

11 A. I had no idea if they were or were not. I had
12 no idea to believe that they weren't.

13 Q. Okay. Now, at this point in time, and when I
14 say this point in time I mean July of 2008, which I
15 think you said was the first time that you sent the
16 results to Mr. Buttram, or maybe in August you were
17 sending two sets of results, is that correct?

18 A. Yes, sir. I was sending one spreadsheet which
19 was the original spreadsheet with the original
20 monitoring network, the MW-1 through 16 which had
21 existed since February of 2005 from the start. And a
22 second spreadsheet which covered all the new GeoSyntec
23 wells. Again that wasn't a GeoSyntec or Fossil
24 Engineering spreadsheet. It was one I created and
25 compiled.

Q. What was the acronym you just used? Someone just created and compiled?

3 A. I create and compiled.

4 Q. I created. I am sorry. The first one you
5 sent, the KIF dredge cell piezometer sheet, that
6 included wells 13, 14 and 15 from the North Dike of
7 Dredge Cell Number 2, correct?

8 A. Yes, sir.

9 Q. Throughout all this time from at least
10 December of '05 when you first started monitoring 13, 14
11 and 15 up until July and including beyond July of '08
12 you were sending the results from 13, 14 and 15 on the
13 North Dike of Dredge Cell Number 2, is that right?

A. That's correct.

15 Q. Just so we know exactly what you were sending
16 can you -- we have already looked at 2839. Let's look
17 at 2839.

20 THE COURT: I am not sure if we moved in
21 2833. The Court will admit it.

22 MR. DAVIS: Thank you, Your Honor.

25 BY MR. DAVIS:

1 Q. Exhibit 2839 is an e-mail from you to
2 Mr. Dotson and Mr. Kimsey dated July 18th, 2008 which
3 was the e-mail by which you sent the two sets of data
4 that I just mentioned, is that correct?

5 A. That's correct.

6 Q. And let's go ahead and bring that up. Just so
7 we are clear, the KIF dredge cell piezometer master file
8 that is mentioned as an attachment here, that was the
9 original piezometer network starting in 2005, is that
10 right?

11 A. Yes, sir.

12 Q. And the KIF piezometers and well points master
13 was the new part of the network that came after the 2006
14 blowout, is that right?

15 A. Yes, sir.

16 Q. And let's go ahead and we have already
17 mentioned 2841. If you will pull out Exhibit 2840.

(Exhibit No. P-2840 was marked for identification.)

20 Is this the KIF dredge cell piezometer
21 file that you were sending in July of 2008 to Mr. Dotson
22 and Mr. Kimsey?

23 A. It appears so.

24 Q. So this e-mail would have attached this
25 e-mail, meaning Exhibit 2839 would have attached Exhibit

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1 2841 and Exhibit 2840, correct? 2841 was the GeoSyntec
2 wells.

3 A. I apologize, I misplaced 2841 here.

4 Q. I think I saw you put it back in the folder.

5 A. Got it right here.

6 Q. Just so we are clear what my question is, the
7 e-mail that is 2839 would have attached 2840 and 2841,
8 is that right?

9 A. Yes, sir.

10 MR. DAVIS: Move to enter all three of
11 these, Your Honor.

12 MR. MARQUAND: No objection.

13 THE COURT: Call out the numbers again.

14 MR. DAVIS: 2839, 40 and 41.

15 THE COURT: So admitted.

16 (Exhibit Nos. P-2839, 2840, 2841
17 were received in evidence.)

18 BY MR. DAVIS:

19 Q. In the summer of 2008 your team continued to
20 have problems with piezometers being destroyed, correct?

21 A. I can't recall specific dates and times of
22 piezometers being destroyed.

23 Q. Do you recall a time when you actually offered
24 to put up bicycle flags to help the crews out there
25 avoid running them over?

1 A. We did. That was two fold; one to help heavy
2 equipment operations better identify the piezometers and
3 second the vegetation out there was, you know, growing,
4 you know, where it obscured some of the piezometers and
5 made it a little bit harder for our field folks.

6 Q. I am going to ask you in a few minute just how
7 many piezometers were actually destroyed during this
8 time frame. Before I do, let me show you another
9 e-mail. Just see if this shows you that they continued
10 to be destroyed throughout this time period. Look at
11 Exhibit 3058.

12 (Exhibit No. P-3058 was marked for
13 identification.)

14 This is an e-mail at the bottom of the
15 page anyway from you to Mr. Buttram, right?

16 A. Yes, sir.

17 Q. And at this point in time you are sending the
18 data to Mr. Buttram, is that right?

A. That is correct.

20 Q. So this shows that "an additional number of
21 wells/piezometers have been found destroyed --
22 apparently by maintenance mowing activities. This
23 includes 7B, PZ-131 and PZ-134." The 7B was from the
24 original piezometer program, is that correct?

25 A. That's correct.

1 Q. And PZ-131 and 134 were from the GeoSyntec
2 monitoring program, correct?

3 A. That's correct.

4 THE COURT: Why don't we, we'll go ahead
5 and admit Plaintiff's 3058 and then break for lunch. I
6 have some criminal matters to take up between 1:00 and
7 1:30. I will do that in Judge Shirley's courtroom.
8 We'll probably unlock this courtroom about 1:15 so you
9 all can get back in and hopefully be ready to go at
10 1:30. I might be running a minute or two late,
11 depending on how I complete my criminal matters.

12 I assume we'll have some cross
13 examination. We'll hopefully finish up shortly after
14 that. Let's go ahead and take a break at this time.

15 (Off the record.)

16 (Back on the record.)

17 BY MR. DAVIS:

18 Q. Mr. Williams, I am going to continue the march
19 of time as we have been doing through here. I think we
20 might have been discussing Exhibit 3058 prior to lunch.
21 Do you recall that?

22 A. Yes, sir.

23 Q. And would you mind bringing that back up. Or
24 bringing it back up over here. Do you have it in front
25 of you?

1 A. Yes, sir.

2 Q. Let me just ask first of all with regard to
3 the timing of the data that you sent to Mr. Buttram on
4 November 10th, 2008. You waited about two weeks to send
5 the results to Mr. Buttram, did you not?

6 A. That's correct.

7 Q. And was there a reason for that delay?

8 A. The main reason for the delay -- typically we
9 have been sending them within a week or less, when I was
10 in the same office as the people that were going out to
11 do the monitoring. With Paul there is a little bit of a
12 delay in back and forth since he wasn't operating out of
13 a TVA facility. It might take him a little while to
14 send off information and once I got it it might take me
15 a little bit to interpret and to, you know, make a
16 positive point of contact with him that I have
17 everything correct. There was a little bit of a delay
18 once Paul came on board. This two weeks was probably
19 more typical. That was kind of new normal in terms of
20 getting the data off.

21 Q. You can correct me if I am wrong, but this is
22 the longest delay there has been in the transmittal of
23 the data that I have seen.

24 A. It could be. Like I said, our typical had
25 been a, had been, you know, approximately one week for

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1 most the life of this project. When Paul Smith had
2 initially taken over he had actually, you know, we made
3 special trips so he wouldn't have to e-mail them and we
4 made that trip typically within a week. When we went
5 to, eventually when we went to e-mail there is just a
6 little bit of time added in there to make sure we had
7 proper communication. When I get Paul's notes I might
8 have to do a little bit of interpreting, if I didn't
9 have him there to ask specifically.

10 Q. Mr. Smith would e-mail you his notes as a
11 scan?

12 A. He would send me a physical copy or e-mail and
13 I would put them in. Most of actual data was easy to
14 understand. If there was any notes that needed
15 interpretation that he sent, I would have to give him a
16 call.

17 Q. Now, at this point in time you were still
18 sending both sets of data, is that right?

19 A. Yes, sir.

20 Q. And that would have been the original set of
21 piezometers that included 13, 14 and 15 and the ones
22 that were added after the November, 2006 blowout,
23 correct?

24 A. Yes, sir.

25 Q. At this point in time Mr. Buttram was your

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1 main contact, is that right?

2 A. I believe so. I sent it to Mr. Buttram and
3 cc'ing Jamey Dotson.

4 Q. I want to ask you to look at Exhibit 3609,
5 which has already been admitted. Do you have that in
6 front of you?

7 A. Yes, sir.

8 Q. This is an e-mail from you to Mr. Buttram.
9 You mentioned you cc'd Mr. Dotson on November -- I'm
10 sorry, December 18th, 2008, with the November 2008 well
11 level results, right?

12 A. Yes, sir.

13 Q. And this was sent over a month after you made
14 the measurements, right?

15 A. Approximately one month later, yes, sir.

16 Q. And you explain in here, "sorry for the delay.
17 I have been holding on this until Paul Smith got another
18 chance to investigate the site." You didn't think they
19 needed these results immediately?

20 A. One of the issues that we had is there was a
21 number of piezometers that they couldn't find or
22 couldn't properly identify and there is also some issues
23 with communication between me and Paul in terms of what
24 the status of some of the missing information was. All
25 this was somewhat antagonized by other work and by the

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1 holidays, but Paul had gone out there and had to make a
2 subsequent trip and once we were able to square that
3 away we were able to report the data.

4 Q. And just so we are clear, if you look at
5 Exhibit 3610, please. You should have that in front of
6 you. It has already been entered into evidence.

7 A. Yes, sir.

8 Q. These are the West Dike piezometers that were
9 added after the 2006 blowout, is that right?

10 A. Yes, sir.

11 Q. And this is the data that was sent on December
12 18th, 2008, right?

13 A. Yes, sir.

14 Q. And then if you look at 3611 which is another
15 one that you should have in front of you which has also
16 been admitted.

17 A. I have it.

18 Q. Okay. These are the original dredge cell
19 piezometers including 13, 14 and 15, correct?

20 A. Yes, sir.

21 Q. And when we have been using Exhibit 919 so far
22 in your testimony would that be the same as Exhibit 3611
23 you think? The tables are a little chopped off in 3611.
24 That's why I prefer to use 919 for a couple of more
25 questions.

1 A. Yes, 3611 is approximately the same as 919.

2 Q. I would like to ask you a few questions about
3 the data that were transmitted on December 18th, 2008.
4 Let's refer to Exhibit 919, if you will, please. Go to
5 the November 19th, 2008 table in Exhibit 919. If you
6 need me to help you with a page, I will be happy to try.
7 For the record, this is the bates number TVK-00054272.
8 Do you see that?

9 A. Yes, sir.

10 Q. This has the entire list -- first of all, this
11 is for the original set of piezometers that included 13,
12 14 and 15 on the North Dike, right?

13 A. Yes.

14 Q. Does this list the entire list of the
15 piezometers that you started with back in 2005?

16 A. Yes, it is.

17 Q. Under well number. If you look under remarks
18 on the right, does that discuss the fate of many of
19 those piezometers over the course of three years?

20 A. Yes. That is our impression of what, you
21 know, happened.

22 Q. You can count, if you would like, but by my
23 count half have either been destroyed or covered with
24 ash in that three year period that you were monitoring
25 the piezometers, is that right?

1 A. Yes, sir.

2 Q. And I am going to take you to what I think is
3 the same compilation of data as was in 3610, which is
4 Exhibit 1667 we have been talking about previously. Do
5 you have that in front of you?

6 A. I have it right here.

7 Q. And this version that we have is not in color,
8 but do you normally or did you normally send these in
9 color?

10 A. Yes, sir.

11 Q. Now, go to the fourth page of Exhibit 1667, if
12 you will. Does that show the depth to water
13 measurements from November 19th, 2008?

14 A. It does.

15 Q. And you can refer back to the second page, if
16 you would like to get the names of the piezometers or
17 the numbers of the piezometers, but is this the complete
18 list of the piezometers that you started with in 2007
19 when you began monitoring the West Dike piezometers?

20 A. The toe slope piezometers, yes, sir.

21 Q. The ones that don't show up anywhere on
22 November 19th, 2008, which would be on the fourth page
23 and you would have to go over to the page that has that
24 same column in, which is at 000332232 because the
25 spreadsheets aren't wide enough to follow easily, but

1 the blanks are the ones that were destroyed, is that
2 right?

3 A. Well, as you will see on the bottom of the
4 next page, 2230, there's a little key and what's missing
5 here is the color coding. When these were printed out
6 in color, the blanks here would have indicated the fate
7 of these wells. It might be that all these, that some
8 of these were destroyed. Some of them might also be dry
9 or obstructed wells or just simply lost in the
10 vegetation. Being in November it is not likely that
11 most of these were lost in vegetation. The fact that
12 they are blank is not an indication that they are
13 destroyed, but rather that was something preventing us
14 from getting data from this piezometer.

15 Q. Do you know how many were destroyed over that
16 period of time?

17 A. I am not sure if I hazard to guess. I know
18 that a number of them were destroyed or damaged and we
19 were able -- one of the previous e-mails we just looked
20 at indicated that Harold Catlett had been able to go out
21 and to rehabilitate some of the wells. Some of the
22 wells for one reason or another might have been damaged
23 or damaged in a way that we can reestablish them and
24 also reestablish the reference point. That is why if
25 you see throughout the span of the monthly recovery of

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1 these toe slope piezometers that some of them kind of
2 disappear and reappear.

3 Q. Now, look, if you will, at the second part of
4 this document which starts with another graph or chart
5 of well points. You see that?

6 A. Yes, sir.

7 Q. That would be page 332233. You see a large
8 blank area there, right?

9 A. Uh-huh.

10 Q. As we previously discussed, that was as a
11 result of you deciding not to measure the levels in
12 those well points because they were overflowing from the
13 ground, right?

14 A. Yes. Those were actively draining and we were
15 told not to worry about them.

16 Q. And in your November 19th, 2008, measurements
17 of the well points, if you will look at the last page of
18 Exhibit 1667, please. Do you see the measurements that
19 are made there, that are reported there?

20 A. Yes, sir.

21 Q. All the blanks, those weren't measured, right?

22 A. The blanks were not measured and there is no
23 indication of why they weren't measured.

24 Q. Now, when you received these water level
25 measurements in November of 2008, did you review them?

1 A. You know, typically when I get the data
2 throughout the course of our monitoring and
3 disseminating the data typically I will get it and check
4 it for errors or for what we call a busted measurement.
5 That is just a measurement that might be attributable to
6 error on the part of the field sampling; it could be
7 instrument error, person error. We confirm that with
8 the sampling crew there was nothing in error for us to
9 invalidate that data point. I would check that as I was
10 transferring it over. In terms of making a qualitative
11 judgment, you know, if something would pop out, I might
12 put it in an e-mail that I pass on.

13 Q. Let's ask you if something popped out here.
14 If you will go to the, let's focus in on the right side
15 of this graph, please in Exhibit 919. Surely you
16 noticed, if you looked at MW-14, 15 and 13 spiked
17 sharply in November of 2008, right?

18 A. Yes. You can see a definite upward movement.

19 Q. Let's talk about how much they moved up. If
20 you will please look at the same exhibit and go to the
21 page where we were talking about November 19th, 2008
22 with the table. I can give you that number. That would
23 be bates number 54272.

24 A. Yes, sir.

25 Q. And you can refer to the October levels, if

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1 you would like, because I want you to compare the
2 November 19th with the October 23rd MW-13 increased by
3 over eight feet. Is that right?

4 A. It would appear so.

5 Q. MW-14 almost seven feet?

6 A. Yes, a little over six, yeah.

7 Q. MW-15 almost six feet?

8 A. Yes, sir.

9 Q. It became artesian, right? It was artesian?

10 A. Yes, sir.

11 Q. That was as steep as an increase of any of
12 these piezometers that preceded the November 2006
13 blowout, right?

14 A. From our discussions today, it is in the same
15 range.

16 Q. It's the same time of the year?

17 A. Approximately.

18 Q. And that is the time of the year when you have
19 more rain and also it is colder so you have less
20 evaporation, right?

21 A. Uh-huh.

22 Q. Can you say yes or no, please?

23 A. Yes.

24 Q. And it is also at a time when they were
25 dredging in to Dredge Cell Number 2. Do you know that?

1 A. I found that out after the fact.

2 Q. That as of October 16th, 2008, TVA began
3 sluicing water and ash into that northern most dredge
4 cell, Dredge Cell Number 2, right?

5 A. If you say so. I found out after the fact
6 that they were dredging. I don't know what specific
7 dredge cell they were dredging to.

8 Q. That dredging continued until December 18th,
9 2008, right?

10 A. Again, I don't know the specifics.

11 Q. We don't have the December rainfall on Exhibit
12 919. Do you happen to know what the December rainfall
13 was up until that time?

14 A. Not off the top of my head.

15 Q. December can be a wet month, though, right?

16 A. Yes, sir.

17 Q. You really wanted to pay attention to those
18 levels during that time of the year, right?

19 A. Yes, sir. And I will point out, if you zoom
20 out on this graphic that's being shown here on 919, that
21 there is a significant jump. The water levels we
22 observed in November of 2008 they are still pretty much
23 within the range of what we see during the wetter
24 periods of the year.

25 Q. Now, given the fact that they were sluicing

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1 water into Dredge Cell Number 2 during this time period
2 and December is typically a rainy month, you would have
3 expected that trend to continue up until December 22,
4 2008, right?

5 A. Not necessarily. Now, you are saying, you
6 know, you are expecting operations to go out there and
7 that would be continuing up. It might be that the water
8 levels had reached some stability and we are seeing an
9 instantaneous snapshot of that, of a flat line. We
10 don't know if it is going up, we don't know if it is
11 going down or going to flat. Right now what we are
12 seeing in November of 2008 are still within the ranges
13 of historical data.

14 Q. But not within the range of the increase that
15 MW-13, 14 or 15 had ever seen before?

16 A. It was a -- 13, 14 and 15 do make a little bit
17 of a jump up in water level, yes.

18 Q. You wouldn't disagree if there were to be
19 testimony in this case that that was the sharpest level,
20 the sharpest rate at which 13, 14 and 15 had ever gone
21 up?

22 A. I don't know. My response to that would be,
23 you know, if I had time to sit here and look back over
24 the data, I could give you a yes or no.

25 Q. Now, who told you that TVA was sluicing water

1 and ash into Dredge Cell Number 2 in December of 2008?

2 A. I don't recall specifically, but it happened
3 post failure. Typically, you know, I am not informed,
4 you know, whether they are stacking or not, I might hear
5 that anecdotally or I might hear that from our field
6 crew. That is not something that Paul and I discussed.
7 After the failure of the dredge cell I was actually part
8 of the people, part of the environmental crew that was
9 on site and evaluating, and during some of our
10 preliminary discussions we were talking about the
11 conditions that happened at the site and it was
12 indicated to me they were stacking at that time.

13 Q. When you say "stacking" is that the same thing
14 as dredging?

15 A. Yes, sir.

16 Q. Or sluicing?

17 A. Loading material on top of the dredge cell.

18 Q. And they do that by pumping out of the ash
19 pond into the dredge cell, right?

20 A. As I understand it, yes. I'm not saying that
21 I have a complete understanding of their technique.
22 That is roughly as I understand it.

23 Q. Now, did Mr. Buttram or Mr. Dotson either one
24 call you in November and ask where the November water
25 levels were?

1 A. I don't recall that they did. I don't recall
2 that they didn't.

3 Q. And your understanding was that Mr. Buttram
4 was the one who was the primary responsible party for
5 evaluating these levels that you sent, right?

6 A. I understood he was the primary receiver. I
7 didn't know once he got it if he turned around and
8 somebody else actually did the interpretation.

9 Q. You certainly thought he was reviewing both
10 sets of data that you sent him, right?

11 A. I certainly thought and had the expectation
12 that someone within Fossil is reviewing it. It might be
13 that they had him -- for all I know and I don't know --
14 is that he was preparing the data for someone else to
15 review.

16 Q. You were holding information in your hands in
17 November of 2008 until December 18th, 2008, that could
18 have prevented the dikes from failing? Do you agree
19 with that?

20 A. I agree that we held it longer than typical.
21 I would make two points. One is that typically we
22 believe sending out bad data is worse than sending out
23 no data at all. We wanted to clarify, I wanted to
24 clarify between me and Paul that this was, you know, the
25 data was as we understood it, clarifying any

1 miscommunications.

2 Q. Well, what you were talking about the
3 miscommunication, the data you wanted to clarify had
4 nothing to do with MW-13, 14 and 15, correct?

5 A. I don't believe it did.

6 Q. So it was only about the well points on the
7 West Dike, is that right?

8 A. To be honest, I can't recall specifically what
9 we talked about, but generally I think it was the
10 piezometers along Swan Pond. It was the markings of
11 some being destroyed or -- there had been so many, there
12 had been several changes. I just wanted to make sure
13 that what we were reporting was accurate.

14 Q. Just to make sure your answer to my question
15 is clear, the data that, the reason that you say you
16 delayed sending the November 19th well level results had
17 nothing to do with 13, 14 and 15?

18 A. That's correct.

19 Q. Did you discuss those results with anyone
20 before you sent them?

21 A. No. I typically didn't.

22 Q. You didn't sound any alarm in November up
23 until December 18th, 2008, right?

24 A. No. Again, we experienced a jump up in water
25 levels in select wells, but I don't spend a lot of time

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1 reviewing the data because we had no call to make a
2 qualitative evaluation. That was done further down the
3 data processing line. You know, I do give it kind of an
4 eyeball check. They are, these values were within kind
5 of historical norms. We hadn't seen a large any sort of
6 increase that coincided with the wet weather
7 approaching. We were expecting some sort of increase.

8 Q. Again, the largest increase you have ever seen
9 in these three piezometers, right?

10 A. I am not saying we were expecting the largest
11 increase we ever saw.

12 Q. You didn't sound the alarm. You just went on
13 vacation?

14 A. I can't recall if I was on vacation or off
15 doing another work.

16 Q. Exhibit 3609 says, "since I will be off for
17 parts of the next two weeks I wanted to send you the
18 latest update." You see that in 3609?

19 A. I do. Actually being off I might have meant
20 being on vacation or in the field. This is typically
21 work that unless there is a high priority -- unless I
22 was going to be out of the office an extended amount of
23 time, I wouldn't have had somebody else process it while
24 I was out.

25 Q. You did expect a further increase in December,

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1 correct?

2 A. We would have expected an eventual increase,
3 yes.

4 Q. And you did not hear from Mr. Buttram about
5 this data. You have no idea if he even saw it?

6 A. I am sorry. Can you restate.

7 Q. You never heard from Mr. Buttram about these
8 data once you sent them, did you?

9 A. I never got a positive confirmation of
10 receipt.

11 Q. And do you have your e-mail set to where you
12 would get a confirmation of receipt?

13 A. No.

14 Q. Okay. But you never heard from him though,
15 did you?

16 A. No.

17 Q. And you know, as we sit here today, that on
18 December 22, 2008, the North Dike failed where 13, 14
19 and 15 were located?

20 A. The North Dike failed and they believe it was
21 somewhere in the area of 13, 14, 15.

22 MR. DAVIS: Thank you.

23 THE COURT: Thank you. Cross-examination.

24 **CROSS EXAMINATION**

25 BY MR. MARQUAND:

1 Q. Good afternoon, Mr. Williams.

2 A. Good afternoon.

3 Q. Do you have any professional certifications in
4 addition to your academic degrees?

5 A. Yes, sir, I am a Licensed Professional
6 Engineer in the state of Tennessee.

7 Q. When did you obtain your license?

8 A. 2007.

9 Q. Let me show you Plaintiff's Exhibit 59. Can
10 you speak to the accuracy of those labels on that
11 document?

12 A. From what I recall, these are all labeled
13 properly. I cannot speak to the areas where the slope
14 issues of 2003 and 2006 locations are. You know, I know
15 they are generally along that western face that face
16 Swan Pond Road. I can't speak with any certainty to
17 where they actually were.

18 Q. Can you speak to the accuracy of the red mark
19 that is in here that says December, 2008 failure
20 location?

21 A. Yes, sir. Per the AECOM report I believe that
22 was the area that they indicated probably it likely
23 failed first.

24 Q. Do you know the date of this aerial
25 photograph?

1 A. I do not. We use similar base maps. I can't
2 specifically identify the year.

3 Q. Okay. I am correct in assuming you didn't
4 prepare this photograph with the labels, is that right?

5 A. That is correct. I did not prepare that.

6 Q. Now, there has been a lot of discussion about
7 and I would have heard the terms "piezometers,"
8 "monitoring wells" and "well points." At one point I
9 believe you corrected counsel that something wasn't a
10 piezometer, was a monitoring well.

11 A. I indicated that piezometers and monitoring
12 wells have similar construction. The only difference is
13 in functionality, how we use them. Typically
14 piezometers are just for water levels and monitoring
15 wells are typically something that we get more than
16 water levels out of, water levels and more out of, I
17 should say.

18 Q. Is there some way that we could have
19 Plaintiff's Exhibit 59A? That was the one that was
20 marked up this morning.

21 I understood that Mr. Williams also marked in
22 red the location of some other wells that were in this
23 area. Is that not correct?

24 MR. DAVIS: On the screen is when he did
25 it.

1 THE COURT: I am not sure he penned in, as
2 I recall --

3 MR. MARQUAND: We only had that shown on
4 the screen?

5 || BY MR. MARQUAND:

6 Q. Then I am going to show you, Mr. Williams,
7 Plaintiff's Exhibit 270.

10 Does that accurately show the location of
11 monitoring wells 1 through 9 and I believe number 16?

12 A. Yes, sir, 16A and 16B. This appears to be the
13 original network that we started the monthly sampling on
14 from February of 2005 that we, and was the entirety of
15 our sampling activity out there until sometime in late
16 2007.

17 Q. Do you know why those, what purpose those
18 wells were used for?

19 A. Initially they had multiple purposes. The
20 location, these two transects that you see on one side
21 MW-1 through MW-5 on the other, and MW-6 through MW-9,
22 the locations were selected by TVA with a large
23 discussion with one of their subcontractors, Worley
24 Parsons, I believe where they wanted to get information,
25 get certain information, but primarily in terms of the

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1 depths and what I was aware that they were being used
2 for was to test for hydraulic properties of the dredge
3 cell that we would be using later on for the lateral
4 expansion of the permit provision.

5 Q. Was that test completed?

6 A. Yes, we performed that testing in January of
7 2005. Originally these wells were only supposed to be
8 monitored for a short period of time and then be closed.

9 Q. Do you know what kind of depth these wells
10 were screened to?

11 A. Off off the top of my head, I don't know.
12 Typically these pair wells, there would be a well that
13 is installed into the ash, either shallow or deep, which
14 would be the A wells and the B wells would typically be
15 a little bit deeper either into the deeper ash or down
16 into alluvium, the area, the material that resides under
17 the ash.

18 Q. I am not an environmental engineer. When you
19 say these are "screened," can you explain what that
20 means?

21 A. Yes, sir, water level piezometers are
22 typically only screened within the material of interest.
23 Screening means that the piezometer is open, and when I
24 say open, it has a screen there and not a solid section
25 of riser across the vertical horizon of interest. The

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1 reason why we want to have multiple wells paired with or
2 multiple wells or piezometers paired together across
3 multiple, you know, target medium or target strata is if
4 you want to observe the behavior in different mediums.
5 By testing these wells you can find out about how the
6 mediums interact. You can also find out the hydraulic
7 properties of the mediums around them. You can also
8 figure out what direction water is flowing.

9 Q. All right. I am going to show you what has
10 offered as Plaintiff's Exhibit 596, page 220. It was
11 the installation record for monitoring well 10.

12 THE COURT: Before you move on, do you
13 want Plaintiff's 270 into evidence since he identified
14 it?

15 MR. MARQUAND: I would offer that, Your
16 Honor.

17 THE COURT: Without objection, we'll admit
18 plaintiff's 270. Thank you.

19 (Exhibit No. P-270 was received in
20 evidence.)

21 BY MR. MARQUAND:

22 Q. Does that installation record indicate the
23 depth to which monitoring well 10 was drilled?

24 A. This indicates the depth to which it was
25 installed. In terms of drilling --

1 Q. Maybe that is a better term, installed then.

2 A. Yes, sir, to which it is installed. It
3 indicates that the total well depth here is 45 feet
4 below beneath the surface.

5 Q. Does this indicate some sort of screen for
6 that well?

7 A. Yes, sir, this indicates that is a five foot
8 screen from about 39.8 feet beneath the ground surface
9 to 44.8 feet beneath the ground surface.

10 Q. So if there is water 38 or 39 feet below the
11 ground surface or below, the water can enter the well,
12 but not otherwise?

13 A. I'm sorry. Can I ask you to repeat that.

14 Q. At what levels can the water enter the well?

15 A. The water can enter the well from 39.8 to
16 44.8. There would be water purge collating down from
17 above that could enter the well. Ideally there could
18 also be water entering from below, but, you know,
19 typically you are going to be pulling in water from that
20 screen. Any water that, other water that would have to
21 get in would have to travel from above or below.

22 Q. So when you are measuring the depth of the
23 water in this well, what does that show you?

24 A. The depth in the water of the well is giving
25 us an indication of what the hydro stratigraphic

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1 pressure is between 39.8 and 44.8. For instance, if
2 this was the ash, and it's homogenous material all the
3 way up, that ash is likely going to give you the true
4 phreatic surface, the water table. This is the first
5 water.

6 If there is a, if there would be a confining
7 layer above it, you could have, or a separate layer
8 above it, the pressure in this well can either be
9 greater, the same or lesser than the pressure of the
10 stratum above or below it.

11 Q. So you are measuring water pressure at this
12 point?

13 A. Yes, sir.

14 Q. Within the various reports that you testified
15 about we were talking about monitoring well 10. How
16 would that particular monitoring well have been
17 designated in those spreadsheets and reports that you
18 were sending to Mr. Petty and Mr. Hensley and
19 Mr. Buttram?

20 A. Are you indicating, are you asking what they
21 are called or --

22 Q. This particular well.

23 A. Yes, sir.

24 Q. When you took measurements from it?

25 A. We would call it MW-10.

1 Q. It would appear in the spreadsheet as MW-10?

2 A. Yes, sir.

3 Q. And the "MW" stood for monitoring well?

4 A. Yes, sir.

5 Q. Now, I believe you also testified about what
6 you saw along the west wall and you initially asked
7 Mr. Petty if he wanted you to monitor that?

8 A. That is correct.

9 Q. What was that?

10 A. These were the additional piezometers that
11 were installed along the west wall, mostly on the lower
12 half of the dike.

13 Q. And you called those piezometers, as opposed
14 to monitoring wells. What was the difference?

15 A. Again, the only difference, the main
16 difference is in functionality. The monitoring wells
17 were, you know, typically when we use the term
18 monitoring well they are intended to be multi purpose
19 for some hydraulic testing or potentially environmental
20 sampling, as well as water levels. These other
21 piezometers were only referred to us as hydraulic
22 monitoring points.

23 Q. Were these physically different?

24 A. No.

25 Q. Did they reach a different level?

1 A. The toe of slope piezometers, as I understand,
2 were much shallower, more in the range of five to ten
3 feet, whereas the ones up on top extended quite deep.

4 Q. I am going to show you Plaintiff's Exhibit
5 285. Can you tell by looking at this, is that the
6 extent of all of the piezometers that you were measuring
7 on the west wall that you took over from GeoSyntec?

8 A. There is a lot of piezometers on there. I
9 cannot tell you definitively. That looks like most, if
10 not all, of them.

11 Q. I am going to show you a document which we
12 have identified as Defendant's Exhibit 194. It appears
13 on Plaintiff's Exhibit list as page 369 of Exhibit 6034.
14 Have you seen that before?

15 (Exhibit No. D-194 was marked for
16 identification.)

17 A. I have.

Q. Can you tell me what it is.

19 A. That is a hand drawing of the GeoSyntec
20 designed or installed piezometers along the west face of
21 Swan Pond Road.

Q. What was the occasion for you to see that?

23 A. When we contracted with Fossil Engineering to
24 go out there we needed an initial map to identify which
25 piezometers were which. This was what was sent to me.

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1 I can't recall specifically who sent it to me. It might
2 have been Jim Settles.

3 Q. So are these and the other piezometers the
4 ones that you ultimately took over monitoring that
5 GeoSyntec had installed and monitored?

6 A. Yes, sir.

7 Q. I note that on this particular document there
8 is some labels that say, that have a "WP"?

9 A. Yes, sir, for well point.

10 Q. And there are some that are "PZ"?

11 A. Yes, sir, for piezometer.

12 Q. What was the difference between the well
13 points and the piezometers?

14 A. I was never told this by Fossil Engineering at
15 the time, but from what I gathered and what is typically
16 used by TVA and in my experience, the piezometers at the
17 toe of the slope are for measuring kind of near surface
18 water level measurements at the bottom. Since the well
19 points can open drain, they were intended to be more
20 functional in terms of acting as drains so the
21 piezometers was the data that kind of dictated what the
22 water levels were near the surface at the toe of the
23 slope and well points were mostly for drainage, adding
24 additional drainage functionality.

25 MR. MARQUAND: Your Honor, I tender

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1 Defendant's Exhibit 194.

2 MR. DAVIS: We don't have any objection to
3 it, I don't think. I think he stated the incorrect
4 exhibit that was part of. We can track that down with
5 the bates number.

6 THE COURT: You can clarify that for the
7 number. We'll admit this single page as Defendant's
8 194.

9 (Exhibit No. D-194 was received in
10 evidence.)

11 BY MR. MARQUAND:

12 Q. I notice there is some discrepancy between
13 Defendant's 194 and Plaintiff's 285. I don't see any
14 well points shown on that particular document, is that
15 correct?

16 MR. DAVIS: I object to the testimony by
17 TVA's counsel, Your Honor.

18 MR. MARQUAND: I withdraw the question.

19 THE COURT: Thank you.

20 BY MR. MARQUAND:

21 Q. Do you see any well points depicted on
22 Plaintiff's Exhibit 285?

23 A. I do not. None are obvious to me.

24 Q. Now, Plaintiff's 285 is part of, it looks like
25 part of a CAD drawing, is that right?

1 A. This looks to be a CAD base with some notation
2 handwritten on there.

3 Q. Do you see anywhere on plaintiff's 285 or did
4 you see anywhere on defendant's 194 any of the
5 monitoring wells?

6 A. On this one in front of me there is two
7 monitoring wells indicated at the very top center;
8 monitoring well 1 and monitoring well 2. There is also
9 another unspecified monitoring well at the bottom
10 center.

11 Q. Do you see monitoring wells 13, 14 and 15 on
12 either Plaintiff's Exhibit 285 or Defendant's 194?

13 A. I do not.

14 Q. Did you know what use Fossil Engineering was
15 making of the data from the piezometers on the west wall
16 that are contained in Plaintiff's Trial Exhibit 1667?

17 A. I never had a conversation with Fossil
18 Engineering to speak about what explicitly they are used
19 for.

20 Q. And similarly did they ever tell you what use
21 they were making of the data from the monitoring wells?

22 A. No, they did not.

23 Q. You were shown Plaintiff's Exhibit 606. I
24 believe you have a copy up there.

25 A. Yes, sir.

1 Q. I don't know if you will be able to read it
2 off this document camera better from the one that you
3 have got.

4 A. I have it in front of me.

5 Q. Do you see any indication in the note at the
6 bottom of the page as to the reliability of the data
7 from the monitoring wells in predicting the water with
8 respect to ground surface?

9 MR. DAVIS: Object to that, Your Honor. I
10 believe Mr. Marquand objected when I asked this witness
11 a similar question about this document and he said the
12 document speaks for itself.

13 MR. MARQUAND: I did, Your Honor. He was
14 allowed to ask the witness a question.

15 THE COURT: I will allow the question.

16 BY MR. MARQUAND:

17 A. There is a note on the bottom. Would you like
18 me to read it?

19 Q. If you can.

20 A. "Under the site specific conditions the well
21 points may indicate equipotential levels higher than
22 ground surface and should not be compared against the
23 water level thresholds, i.e., the colored water level
24 legend. WP, well points are screened approximately 20
25 feet below ground surface and represent the

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1 equipotential levels at this depth. In contrast, the
2 piezometers are screened at approximately three to five
3 feet below ground surface and represent the location of
4 the water table."

5 Q. Let me direct your attention to Plaintiff's
6 Exhibit 1251. I believe you testified with respect to
7 the bottom e-mail you notified Mr. Petty about some
8 seepage you noticed in the North Dike.

9 A. That's correct.

10 Q. And what did Mr. Petty tell you that he had
11 determined that seepage was?

12 A. Mr. Petty indicated that that was likely from
13 under drains on the side of the dredge cell, the outlet
14 into the ditch and that they were, they didn't know
15 exactly where the drains were, but he indicated that it
16 is on a 200 foot interval, and, you know, that
17 approximate location, he indicated that the water was a
18 good sign.

19 Q. Was a good sign?

20 A. That the clear water was a good sign, yes,
21 sir.

22 Q. You mentioned a ditch. Where was this seep in
23 the monitoring well 15 in relation to that ditch?

24 A. It was pretty close. One of the earlier
25 e-mails that we reviewed, and I can't tell you which one

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1 it was off the top of my head, said it was actually --
2 it was this one. Said that it was approximately 15 feet
3 south of MW-15. That is in the e-mail that initiated
4 the change.

5 Q. There has been some discussion with the fact
6 that a number of wells were buried and/or closed. Can
7 you explain why it is that a well would be buried?

8 A. More than likely the wells that were buried --
9 off the top of my head, I believe the e-mails referred
10 to 5A, 5B, 6A and 6B. I would have to look at the
11 notes. I think there at the end, towards the end of
12 monitoring, 7B as well, were buried due to stacking
13 operations.

14 Q. Stacking of what?

15 A. Stacking of ash on top of the dredge cell.

16 Q. As we look at Exhibit 270, where were those
17 wells located?

18 A. In the center of the dredge pond cells on the
19 very top of the dredge cell.

20 Q. And when you say that wells are closed, what
21 do you mean by that?

22 A. If wells are either damaged beyond repair or
23 of little use to us or too much of a hassle to keep up
24 with -- in this case if they are stacking on top, it
25 would have raised the elevation of the ground up with

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1 the stacking of the ash and they would have had to
2 extend those casings. In any three of those cases they
3 would want to just go ahead and close it.

4 The closing would take just a few different
5 forms, including the form that we discussed for
6 monitoring wells 4A and 4B which is using bentonite
7 pellets, which is an expansive clay, to fill up the hole
8 and that clay would expand to prevent any further
9 infiltration through that well.

10 Q. I want to ask you to direct your attention to
11 an e-mail dated, the last in the chain was dated April
12 28th, 2008. It is Plaintiff's Exhibit number 1181. I
13 want to ask you about the first e-mail in that chain
14 which is your April 28th e-mail to Mr. Petty. There was
15 some discussion about well points draining. Can you
16 explain how a well point drains, how these particular
17 well points drain.

18 A. These particular well points are draining,
19 again, because they are built so that they can drain.
20 Typically the ordinary piezometer or well will feature a
21 length of riser, PVC riser, closed in section extending
22 to some nominal height above the ground surface which is
23 typically around three feet. These wells would have had
24 some sort of "Y" valve on them that would allow them to
25 freely drain just above the surface where they can open

1 that valve and instead of the water going up the
2 instrument, it is actually day lighting at this valve.

3 Q. Do you know if the draining was intentional or
4 not?

5 A. I did not specifically know. Just based on my
6 experience they wouldn't have built it like that, if it
7 wasn't intentional. They wouldn't have given it the
8 ability to drain like that, if they weren't intending to
9 drain like that.

10 Q. Were these the drive point piezometers that
11 you said were five to six feet long or were those one of
12 the well points that were at some depth?

13 A. I believe these were the -- let me double
14 check the other document here. I believe these were the
15 well points where the screen was approximately 20 feet
16 below grade. These were not the piezometers at the near
17 surface.

18 Q. Thank you. Now, you mentioned in Plaintiff's
19 Exhibit 3058 at the very top it said, "Harold Catlett
20 was on site last week and repaired some of the wells."
21 What is that all about?

22 A. Earlier in the e-mail on the bottom of this
23 same e-mail I refer to an additional number of wells and
24 piezometers including 7B, PZ-131 and PZ-134 had been
25 destroyed. I am sure there might have been some damage

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1 to several of these wells that might not be indicated in
2 this e-mail, but were on the spreadsheet that I sent the
3 data. The e-mail here, you know, part of our mission
4 out there is to look for any changes, including any
5 changes to the integrity of the wells and report that to
6 the customer.

7 In my previous e-mail I reported that to Chris
8 Buttram and cc'd Jamey Dotson. Jamey responded back
9 that "Harold Catlett was on site last week and repaired
10 some of the wells." He would have brought some of the
11 wells back to functionality.

12 Q. I want to show you Plaintiff's Exhibit 1763.
13 Let's begin with the first e-mail in this chain. It is
14 from you to Mr. Buttram dated August 22, 2008. Have you
15 seen that before? Do you have that there?

16 A. I am pulling it out now.

17 (Exhibit No. P-1763 was marked for
18 identification.)

19 A. August 22nd, 2008. The e-mail from me to
20 Chris Buttram, yes, sir.

21 Q. And you noted in there, did you not, that some
22 of the wells, you asked him to close some of the wells,
23 is that correct? I am sorry, that is from Mr. Dotson to
24 you. I am reading the wrong one. You mention to
25 Mr. Buttram that several piezometers were broken. You

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1 ask him about closing the valves. Do you know why?

2 A. The closing of the valves, we had a couple of
3 months in a row there where we were unable to take a
4 real valid measurement from those instruments because
5 they were flowing freely. When I, you know, talk about
6 Paul about coming up with a solution to this, he
7 indicated that if it was permissible that he can go out
8 a couple of days in advance and just close them and then
9 we can go, you know, sometime several days after and
10 take a measurement. After we got all our measurements,
11 open up the valves and let it freely drain.

12 Q. Does this have to do with the wells that you
13 previously testified you couldn't take measurements from
14 when they were flowing?

15 A. Yes, sir, it is the exact same ones.

16 Q. So did you make arrangements to have someone
17 close those valves prior to taking the measurements?

18 A. Yes, sir. We had an agreement with Fossil
19 Engineering. They had a gentleman on site who they got
20 to go by and close them ahead of schedule, if we let
21 them know when we were coming out. Eventually I believe
22 they did just give us permission later in the year to
23 just close it ourselves.

24 Q. Look at the next e-mail of this e-mail chain
25 on Plaintiff's Exhibit 1763. It is from you to Jamey

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1 Dotson. Do you see where it says, "may I ask you to
2 arrange to close every other valve at Kingston next
3 week?"

4 A. Yes, sir.

5 Q. Why every other valve?

6 A. When I talked to Fossil Engineering, they
7 indicated that if we gave them some warning that they
8 would be willing to close every other valve. They
9 wanted the valves to be open and draining as much as
10 they could. They suggested that maybe just closing
11 every other valve because we would still be able to get
12 a representative data. There is a number of valves in
13 fairly tightly spaced. They indicated it wasn't
14 critical to get a measurement for every well to have a
15 good representative spacial distribution.

16 Q. Would you read the next paragraph, please.

17 A. The next paragraph, "Did you get a chance to
18 review my other two questions below concerning
19 additional flagging for wells at risk from mowers, and
20 continuation of our monitoring at the dredge cell into
21 fiscal year 2009?"

22 Q. Did you get a response from Mr. Dotson about
23 your questioning about flagging the other wells?

24 A. Yes. In fact, it is on the first page of the
25 e-mail.

1 Q. What was that response?

2 A. His response is "Matt, we do want for you to
3 continue monitoring the levels of the wells and make the
4 necessary minor repairs, flag addition, etcetera.
5 By-products will fund this effort instead of
6 Environmental Affairs since these are not regulatory
7 wells, but are more for stability issues. It would be
8 great if Paul would open the valves each month after his
9 monitoring activities."

10 Do you want me to continue reading?

11 MR. MARQUAND: Your Honor, we tender
12 Plaintiff's Exhibit 1763.

13 THE COURT: So admitted.

14 (Exhibit No. P-1763 was received
15 in evidence.)

16 BY MR. MARQUAND:

17 Q. Did you follow up on that? Let me ask you to
18 look at Plaintiff's Exhibit 245. I think you can see it
19 on your monitor.

20 A. I don't think I have a copy of that.

21 (Exhibit No. P-245 was marked for
22 identification.)

23 A. Yes. Jamey responded to me and my response to
24 him.

25 Q. Did you give him an estimate of how much it

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1 would cost?

2 A. Yes.

3 Q. Did you follow up on, did he follow up with
4 respect to that cost estimate?

5 A. He followed up by asking "how much do you
6 think the repairs and flags will cost?"

7 Q. Did you give him an estimate?

8 A. I did. We indicated that it would be
9 something in the range of a hundred to one hundred fifty
10 as a ceiling.

11 Q. And so what did he tell you to do?

12 A. He said "sounds great. Thanks for all the
13 help."

14 Q. What did you do?

15 A. We proceeded forward.

16 Q. To do what?

17 A. We proceeded with the monitoring and we
18 proceeded forward to mark the wells, to repair the wells
19 and also mark them, you know, prevent future damage,
20 marking them as a warning to --

21 MR. MARQUAND: Your Honor, we tender
22 Plaintiff's Exhibit 245.

23 MR. DAVIS: No objection.

24 THE COURT: So admitted.

25 (Exhibit No. P-245 was received in

evidence.)

2 BY MR. MARQUAND:

3 Q. Just so we are clear, Mr. Williams, I want to
4 show you Plaintiff's Exhibit 59A. The area of
5 piezometers and monitoring wells that you were
6 monitoring for Fossil Engineering were along the west
7 wall, is that correct?

8 A. Are we talking about --

Q. In this area you circled this morning.

10 A. Yes, sir. That would be the additional
11 piezometers, the area of the additional piezometers
12 having picked up.

Q. The GeoSyntec?

14 A. That GeoSyntec had called for and had
15 arranged, called for, designed and they may or may not
16 have even arranged for them to be drilled.

17 Q. Monitoring wells 13, 14 and 15 are in this
18 area up on the northeast dike, correct?

A. That's correct.

20 Q. They were not part of the system and not in
21 the same area as the GeoSyntec piezometers and well
22 points?

23 A. No, sir.

24 | Thank you, Mr. Williams.

25 THE COURT: Redirect examination.

1 MR. DAVIS: Just a few, Your Honor. I
2 will try and make it brief.

3 **REDIRECT EXAMINATION**

4 BY MR. DAVIS:

5 Q. Mr. Williams, we'll try to get you out of here
6 in just a minute. I have just a couple of things to
7 follow up with.

8 A. Yes, sir.

9 Q. You know that GeoSyntec intended for the well
10 points to be measured for water levels, is that right?

11 A. I do not. I never had a conversation with
12 GeoSyntec regarding that. You know, we were told to
13 measure everything. At the outset we were told to
14 measure everything out there, yes, sir.

15 Q. TVA decided to measure those and you were
16 given the task to do it, right?

17 A. Yes, sir.

18 Q. And they do indicate water levels in the
19 dikes, do they not? Or did?

20 A. You are talking about all of the GeoSyntec?

21 Q. We are talking about the well points at the
22 moment that you were being asked about on the West Dike
23 by Mr. Marquand.

24 A. Yes, sir, they give indication of water at
25 whatever specific vertical horizon that they are

1 screened in, whatever material that they are screened
2 in.

3 Q. And I think that we are abundantly clear about
4 this. I want to make absolutely sure. All monitoring
5 wells are piezometers, if they are used to measure water
6 levels, right?

7 A. If all you are doing is getting water levels
8 out, they are all piezometers.

9 Q. But not all piezometers can be monitoring
10 wells, unless you can do something else with them, is
11 that right?

12 A. Yes. Typically that comes down to
13 construction. I can't say specifically whether or not
14 all the piezometers out there adhered to how we, you
15 know, as an industry standard install monitoring wells.

16 Q. Let's just, I think if we can bring up Exhibit
17 596, please. If we can go to the Monitoring Well 13
18 diagram here. Do you have 596 yet, Mr. Williams?

19 A. Not yet. It couldn't have gone far. I can
20 look at the screen, if needed to.

21 Q. You were asked with regard to Mr. Marquand's
22 cross-examination about this diagram from MW-10. Do you
23 see that one?

24 A. Yes, sir.

25 Q. Now, you were asked about this screen. If the

1 water level is above the level of the screen, you still
2 get that level in the piezometer or well, right?

3 A. If the water level is above the screen --

4 Q. Let's just take -- if the water level were at
5 the surface in this diagram, which is shown in this case
6 where the horizontal line is that is shaded at the top,
7 right?

8 A. Yes, sir.

9 Q. If the water level were at the surface, you
10 would see it at the same level within the piezometer,
11 correct?

12 A. If the material from the surface down through
13 the screen is the same material you would expect to see,
14 you would expect there to be water all the way down,
15 yes. If it's ash from the surface all of the way down
16 and to the bottom of the screen, yes.

17 Q. And just as we were talking about with the
18 artesian wells, if the water is at the surface in the
19 piezometer that you are measuring or at the level of the
20 surface in the piezometer that you are measuring, that
21 means it is at that same level approximately within the
22 ground or in this case the ash, is that correct?

23 A. If you are seeing artesian conditions.

24 Q. Right.

25 A. Artesian conditions exist when essentially the

1 phreatic surface crosses the ground surface elevation.
2 If the phreatic surface is kind of like this and you
3 have a slope that is kind of like that where they
4 crisscross, that's going to be where you can have a
5 seep. If this was all screened the same material,
6 that's correct. Where you can have a case where it
7 might extend up the piezometer a couple of feet, if you
8 are measuring the water in the material underneath like
9 the alluvium and the alluvium has a different
10 hydrostatic pressure than the ash, then you could exceed
11 the ground surface.

12 Q. And the case that we have been talking about
13 MW-15, it was the lower of the three monitoring wells on
14 the North Dike, is that right, the lower in elevation?

15 A. Yes, sir.

16 Q. So if it were artesian, as it was many times,
17 that is because the levels in the dikes were higher than
18 the level of that monitoring well, is that right?

19 A. If it is artesian, that means the water
20 pressure in that screened interval, and, again, this
21 document doesn't -- I just looked through -- doesn't
22 indicate what material that is screened in, but the
23 hydrostatic pressure there would be in excess of the
24 ground surface.

25 When you are looking at this you usually put

1 hydrostatic pressure in terms of feet. We use the datum
2 of the well to represent that system, and if you have an
3 exceedence of the ground surface, it just means that the
4 pressure -- if the pressure, if the material above was
5 not there, then it would, it would push the water, the
6 confining material was not there, it would push the
7 water up to that given level.

8 Q. So, whenever MW-15 was artesian it meant that
9 the water levels were higher in the dike up above it, is
10 that right? Higher than the elevation of the surface
11 where MW-15 was located?

12 A. The pressure within that screened interval,
13 that's correct. Again, I don't know if this was
14 screened in the ash or in -- off the top of my head I
15 don't know if it was screened in the ash or in the
16 material that is deeper that might have been at a higher
17 pressure.

18 Q. You don't know whether the original intent was
19 to measure the levels in the ash dikes with those
20 piezometers?

21 A. I didn't specify where to stick these wells.
22 I didn't specify how deep to stick these wells. I
23 really never had an opportunity for a conversation with
24 either the Fossil Engineering or its representative as
25 to what the goal for these wells were.

1 Q. You mentioned some conversations you had with
2 Fossil Engineering. I hate to keep switching back and
3 forth from the ones on the north to the ones on the
4 west, but about the well points on the west side that
5 they needed to be open and flowing. Did they ever tell
6 you why?

7 A. They didn't indicate why specifically.

8 Q. Are you aware that part of the remedial
9 measures after the November, 2006, blowout were to
10 provide spring boxes on that West Dike to allow more
11 water to flow?

12 A. I never had that conversation. By the fact
13 that they had dewatering, these dewatering points out
14 there, you know, I think it was reasonable for me to
15 assume that it was, that is what they were there for.

16 Q. I am trying to understand. Did anyone give
17 you the impression that the remedial measures weren't
18 working well enough so they had to let these piddly
19 little plastic pipes flow as well?

20 A. I never had that conversation.

21 Q. Okay. You were, let's look at Exhibit 245.

22 THE COURT: Before you leave this exhibit,
23 or put it back up, 596, sorry.

24 The water that you are measuring, it
25 infiltrates through the two inch diameter slotted

1 screens on this diagram, is that correct?

2 THE WITNESS: Yes, sir.

3 THE COURT: You may have discussed this.

4 How did you or your team members actually take the water
5 measurements?

6 THE WITNESS: You see at the top of the
7 diagram where you have the lockable plastic, the rubber
8 plug at the top. If you move that lockable plastic
9 rubber plug, you just have -- that area above the ground
10 surface is what we called stick up. It's just the part
11 of the PVC riser which is a solid section. It sticks up
12 typically about three feet. We will approach that and
13 there will usually be a mark there. Typically we use a
14 Sharpie to indicate what side. By convention we always
15 pick the highest point. Sometimes they are flat,
16 sometimes they are at a slight angle. From that point
17 we'll know what the measurement is. Let's say it's like
18 800 feet.

19 We'll use an electronic instrument called
20 a water level indicator, which it is a measure tape on a
21 reel. The tape at the end it has got, you know, about a
22 four inch metal probe on it and in the middle of the
23 probe it has got essentially one end of a circuit which
24 is not touching the metal around it and the rest of it
25 is the other end of the circuit.

1 Once that goes down to the water, the
2 water will allow electricity to transmit. It will
3 complete the circuit which sends a signal to the top.
4 The reel that we are holding, it will sound a tone and a
5 light. Whatever depth that is -- let's say it's reading
6 20 feet. What we do is we take --

7 THE COURT: When you say 20 feet, are you
8 talking about 20 feet from the cap?

9 THE WITNESS: Yes, sir, down to water. If
10 the elevation of the cap is 800 and it's 20 feet to
11 water, we are saying that at that instant for that
12 piezometer which is screening whatever the specific
13 strata that we are interested in, that the hydrostatic
14 pressure there is 780 feet.

15 Again, that, if that is ash, it could be a
16 true phreatic surface, true representation of the water
17 table. If it is, if we are actually measuring something
18 beneath the ash, then it might be the same. It might be
19 slightly higher, it might be slightly lower.

20 THE COURT: Thank you.

21 BY MR. DAVIS:

22 Q. This instrument that His Honor just asked you
23 about how you measured the level in the piezometers, is
24 that something you can carry with you on your person?

25 A. Yes, sir. It is relatively small and it is

1 relatively light weight.

2 Q. How expensive would something like that be?

3 A. We just bought one last week. They range
4 anywhere from \$500 to \$800.

5 Q. So someone doing an annual dike stability
6 inspection could carry one of those easily and measure
7 levels in these monitoring wells?

8 A. They could.

9 Q. Okay. You responded to a question from TVA's
10 counsel about what use you thought Fossil Engineering
11 was making of these water levels you kept sending them
12 month after month. Would it surprise you to learn that
13 Mr. Buttram testified from that seat where you are
14 sitting yesterday that he made no use of the ones that
15 included 13, 14 and 15?

16 A. In terms of would that surprise me? It would
17 surprise me a little bit because, you know, if you are
18 taking data you are taking data for some purpose,
19 whether it is immediate purpose or a future purpose.
20 You know, did I have any, you know, knowledge of what
21 the system was beyond what we sent, as we have indicated
22 here, that Fossil Engineering had a way to rectify that
23 data, no. I have no awareness, that if anyone was to
24 enter it in it would necessarily be Chris.

25 Q. You would be surprised to learn that he didn't

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1 even know that there were levels being measured on the
2 North Dike, wouldn't you?

3 A. Again, if he is receiving the data -- you
4 know, for what I do, you know, I am essentially a
5 middleman in this process. It's possible that Chris
6 could have been a middleman in this process and handing
7 off to someone else. If he was the person in charge,
8 and, you know, he might deal with it directly, he might
9 have someone else to deal with it. I would certainly
10 expect if we had this commitment to the state that
11 someone would be doing that. You know, I can't be too
12 surprised or not if Chris didn't read it, or not knowing
13 what happened to the data after we sent it off.

14 MR. DAVIS: That's all I have.

15 THE COURT: Thank you. Any Recross?

16 MR. MARQUAND: No, Your Honor.

17 THE COURT: Thank you, Mr. Williams. You
18 may be excused. Do you want to keep Mr. Williams under
19 subpoena?

20 MR. DAVIS: We would ask that he remain
21 subject to subpoena, Your Honor.

22 THE COURT: All right, Mr. Williams just
23 as a reminder to you, it is possible you may be called
24 later in this trial back as a witness. It's probably
25 already been explained to you. You should not discuss

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1 your testimony today with any other potential witnesses
2 or discuss anybody else's potential testimony until the
3 trial is over.

4 THE WITNESS: Yes, Your Honor.

5 THE COURT: Thank you. You are excused
6 for now.

7 We ready for our next witness?

8 MR. FRIEDMAN: Your Honor, may it please
9 the Court, can we have a five minute break before our
10 next witness?

11 THE COURT: Who is that?

12 MR. BRANDES: Christopher Hensley, Your
13 Honor.

14 (Off the record.)

15 (Back on the record.)

16 THE COURT: The defendant may announce
17 their next witness.

18 MR. BRANDES: Plaintiff calls Christopher
19 Hensley to the stand.

20 CHRISTOPHER HENSLEY

21 was first duly sworn and testified as follows:

22 **DIRECT EXAMINATION**

23 BY MR. BRANDES:

24 Q. Mr. Hensley, good afternoon.

25 A. Good afternoon.

1 Q. Just so that you know, there is a bucket of
2 exhibits right in front of you that we might be
3 referring to today. When we go through them, I will
4 reference you to them and you can pluck them out and
5 read them, as you go along, okay?

6 A. Okay.

7 Q. Mr. Hensley, what do you do for a living?

8 A. I am a senior civil design tech.

9 Q. What does that mean to be a senior civil
10 design tech?

11 A. I just take the information that the engineer
12 sketches, they prepare, and I will put them into a
13 program called AutoCAD and basically make them, make
14 everything look pretty for them and just put drawings
15 together for them.

16 Q. Are you an engineer?

17 A. No, I am not.

18 Q. Do you work within the Engineering Design
19 Division?

20 A. I am just a design tech.

21 Q. Just a design tech. Can you trace your
22 educational background for us?

23 A. I graduated from high school. I got a
24 two-year degree from Pellissippi State. I have been
25 with TVA for a little over ten and a half years.

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1 Q. In the same position?

2 A. Well, as far as job title, yes. I have
3 changed from Fossil to Environmental group.

4 Q. As of the 2008 time frame, what group were you
5 with?

6 A. I was with Fossil up to June of '08. I
7 started June of '08 here with Environmental Group.

8 Q. Now, have you ever worked on creating any
9 designs for TVA, any engineering drawings, actually
10 creating them?

11 A. Just what the engineers have given to me. I
12 put them on drawings yes, for them.

13 Q. You don't come up with the design yourself?

14 A. No.

15 Q. Have you ever done any work for TVA specific
16 to the Kingston facility?

17 A. Yes. I have worked on a plan that goes up on
18 the Peninsula area.

19 Q. Have you ever worked on any plans for the
20 Kingston facility dealing with the ash pond or dredge
21 cells there?

22 A. No, I haven't.

23 Q. Have you ever done any work regarding the
24 Kingston facility regarding any repairs to the dredge
25 cells or ash ponds at the Kingston facility?

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1 A. I made some minor revisions to for as-built
2 construction on the weir when they closed it on the --
3 well, bottom ash, I guess.

4 Q. Specific to the dikes that make up the dredge
5 cells or the impoundment at Kingston, did you ever do
6 any work on that?

7 A. No.

8 Q. Any design work or repair work on those
9 portions of the impoundment?

10 A. No.

11 Q. Did you ever do any work on placing well
12 points or monitoring wells or piezometers at the
13 Kingston facility?

14 A. No.

15 Q. What about in terms of inspecting them?

16 A. Never.

17 Q. What about in terms of taking measurements
18 from them?

19 A. Never.

20 Q. Had you ever walked the dikes of Kingston?

21 A. No, I haven't.

22 Q. Have you ever been to Kingston?

23 A. Yes, I have.

24 Q. When was the last time before December 22,
25 2008 you had been to Kingston?

1 A. Probably about three years ago before that.

2 Q. Three years earlier. Sometime in 2005 you
3 mean?

4 A. Yes. Sometime in that time frame.

5 Q. Did you ever have an office at Kingston?

6 A. No, I haven't.

7 Q. You always worked out of Chattanooga?

8 A. Until I moved up here, yes.

9 Q. Fair enough. Thank you for the clarification.

10 Were you ever an inspector for TVA?

11 A. Yes, I was.

12 Q. For what were you an inspector?

13 A. I helped in the inspection of ash ponds and
14 then in a few years after that I have been doing
15 railroads is what I am doing now.

16 Q. As an engineering tech?

17 A. As a design tech.

18 Q. As a design tech, excuse me. Did you ever
19 have any specific education on inspecting impoundments?

20 A. On-the-job training.

21 Q. What about school training?

22 A. No, no school training.

23 Q. When was the first time you ever did an
24 inspection of an impoundment for TVA?

25 A. Probably around 2002.

1 Q. How many inspections would you do a year for
2 TVA?

3 A. I would probably do maybe at least maybe
4 assist with an engineer, maybe three, three or four a
5 year.

6 Q. Would you agree with me there were times
7 during maybe up through 2008 you were doing inspections
8 on your own for the TVA?

9 A. Yes.

10 Q. As a matter of fact, during 2008 you were
11 assigned to do three inspections at various impounds at
12 the TVA on your own, correct?

13 A. Yes, I was.

14 Q. Do you know what the permit requirements are
15 with regard to the Kingston impoundment?

16 A. No, I don't.

17 Q. Did anybody ever teach you about that?

18 A. Not the requirements, no.

19 Q. Did anybody ever show you the actual permit
20 regarding the Kingston facility?

21 A. No.

22 Q. Did anybody ever show you the actual TDEC
23 permit for the dredge cell repair work at Kingston?

24 A. No, because I never, like I said, I have never
25 done Kingston.

1 Q. So you have no knowledge about the content of
2 the requirements of the TDEC approved permit for
3 Kingston, correct?

4 A. That is correct.

Q. So to the extent that there are requirements
in that permit, as it relates to groundwater or water
level monitoring, you have no concept of that, no idea
about that, correct?

9 A. No idea.

10 Q. I want to show you -- let me ask you this
11 first. At some point in time in 2008, and please
12 correct me if I am wrong, you took on a role or were
13 assigned a role with regard to some aspect of the
14 groundwater or water level monitoring at Kingston, is
15 that right?

A. I was filling out an Excel spreadsheet.

17 Q. Okay. If you can take out in front of you, if
18 you can pull up on the screen Exhibit 1214, 1214.

19 (Exhibit No. P-1214 was marked for
20 identification.)

21 Q. Let me know when you are ready.

22 A. I am ready.

23 Q. Would you agree with me that the top e-mail
24 there is an e-mail from Harold Lynn Petty to you dated
25 January 25th, 2008?

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1 A. Yes, that's correct.

2 Q. Mr. Petty was your supervisor or boss? How
3 would you classify him?

4 A. He was my immediate supervisor.

5 Q. And the e-mail immediately below that is from
6 Mr. Williams to Mr. Petty, correct?

7 A. Yes.

8 Q. That is dated December 12th, 2007 correct?

9 A. Yes.

10 Q. And it indicates that Mr. Williams is
11 forwarding to Mr. Petty the December monthly update on
12 the Kingston dredge cell, right?

13 A. Yes.

14 Q. That is data that was collected regarding
15 December of 2007 right?

16 A. It looks correct.

17 Q. Okay. And then Mr. Petty six weeks later on
18 January 25th, 2008, he forwards that data to you,
19 correct?

20 A. Yes.

21 Q. And he writes to you, "Chris, I am going to
22 forward this e-mail to you and then another one from
23 Geosyntec. Study these up and apply the readings from
24 this e-mail into the Geosyntec monitoring form," right?

25 A. Yes.

1 Q. This was your first ever assignment on this
2 project, correct?

3 A. Yes.

4 Q. And this was your first introduction into
5 anything dealing with water monitoring at Kingston,
6 correct?

7 A. Correct.

8 Q. What is this e-mail from Geosyntec? Do you
9 have any recollection?

10 A. That was the spreadsheet that they created.

11 Q. Okay. And that was the sum total of your
12 introduction to this water monitoring issues, correct?

13 A. That is correct.

14 Q. Nobody ever gave you a book on it?

15 A. No.

16 Q. Nobody ever gave you a pamphlet on it?

17 A. No.

18 Q. He told you to read the e-mail and start
19 plugging in numbers?

20 A. Well, that is what it was, numbers that was
21 given in these attachments.

22 Q. And you were supposed to put them into a
23 spreadsheet?

24 A. Yes.

25 Q. Mr. Petty never met with you and walked you

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1 through all the issues regarding Kingston?

2 A. Well, you know, I worked with him and during
3 group meetings, staff meeting type we would, you know,
4 we would listen to, you know, different kind of like a
5 little overview of what their projects, what project
6 status was.

7 Q. Did anybody ever tell you the significance of
8 this groundwater monitoring?

9 A. No.

10 Q. So you were working on a project that you
11 didn't know the significance of it, correct?

12 A. Correct.

13 Q. You didn't know if it had anything to do with
14 stability of the dikes, for example, right?

15 A. That's correct.

16 Q. You didn't know the level of importance of it,
17 right?

18 A. Well, I understood some, but not fully.

19 Q. What did you understand?

20 A. I just knew it was something they were
21 monitoring and it was something that, you know, the
22 engineers were studying and looking at.

23 Q. Did you understand that the monitoring was
24 relevant or important or significant to the issue of the
25 stability of the dikes at Kingston?

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1 A. No.

2 Q. Did you have an understanding that if the
3 levels got to a certain range it could be a red flag or
4 a warning sign that the dikes might fail?

5 A. No.

6 Q. Did they ever give you any information from
7 Geosyntec, for example, that said that the dikes could
8 be in danger, if the water levels got too high?

9 A. No.

10 Q. If you can turn now to Exhibit 1185, I would
11 appreciate that.

12 THE COURT: You want to introduce 1214?

13 MR. BRANDES: Yes, Your Honor.

14 THE COURT: Plaintiff's 1214 is admitted.

15 MR. BRANDES: Thank you, Your Honor.

16 (Exhibit No. P-1214 was received
17 in evidence.)

18 (Exhibit No. P-1185 was marked for
19 identification.)

20 BY MR. BRANDES:

21 Q. That is an e-mail from Harold Petty to you in
22 January of 2008, correct?

23 A. Yes.

24 Q. And he is forwarding you some data that had
25 been forwarded to him by Mr. Williams the same day,

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1 correct?

2 A. Yes.

3 Q. And that is the January, 2008 data, correct?

4 A. Yes.

5 Q. And he says to you, "Chris, please plot it
6 into the Geosyntec spreadsheet," correct?

7 A. Yes.

8 Q. So you did that?

9 A. Yes.

10 MR. BRANDES: Can we move that into
11 evidence, please.

12 THE COURT: So admitted.

13 (Exhibit No. P-1185 was received
14 in evidence.)

15 BY MR. BRANDES:

16 Q. If you take out of the box Exhibit 1186.
17 (Exhibit No. P-1186 was marked for
18 identification.)

19 Q. That should be the Kingston dredge cell water
20 level data sheet. It was a pretty thick document. Do
21 you have it in there? It is not in there? All right.
22 We can look at it on the screen this way, if you will.

23 A. Unless -- wait a minute. Unless it is by
24 itself here.

25 Q. 1186. It is not in there?

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1 THE COURT: Are you going to look at this
2 one page?

3 MR. BRANDES: We can look at it through
4 the screen.

5 A. Yeah, I have got it.

6 || BY MR. BRANDES:

7 Q. Thank you very much, great. Looking at the --
8 flip through a few of the pages. I want you to get
9 familiar with it. I ask you this. Have you ever seen
10 it before?

11 A. Some of it looks familiar. It is stuff that
12 would be in Matt's e-mail.

13 Q. Okay. Did you ever, did anybody ever tell you
14 how to interpret this?

15 A. No.

16 Q. Did anybody ever tell you how to determine if
17 there were levels in the data that were too high or of
18 concern or red flagged?

19 A. No.

20 MR. BRANDES: Your Honor, I move into
21 evidence Exhibit 1186.

THE COURT: So admitted.

23 (Exhibit No. P-1186 was received
24 in evidence.)

25 BY MR. BRANDES:

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1 Q. I would like to turn your attention now to
2 Exhibit 1201.

3 (Exhibit No. P-1201 was marked for
4 identification.)

5 Q. That is an e-mail from Mr. Petty again to you
6 on February 25th, 2008, correct?

7 A. Yes.

8 Q. And he is forwarding to you an e-mail and
9 attachment from Mr. Williams of the same date sending
10 you the February data for the water monitoring, correct?

11 A. Yes.

12 Q. I take it you took the data and plugged it
13 into the sheet again, right?

14 A. Yes.

15 MR. BRANDES: Your Honor, move into
16 evidence Exhibit 1201.

17 THE COURT: So admitted.

18 (Exhibit No. P-1201 was received
19 in evidence.)

20 BY MR. BRANDES:

21 Q. Attached to the data in your bucket of
22 documents there is Exhibit 1202.

23 (Exhibit No. P-1202 was marked for
24 identification.)

25 Q. Is that the data sheet and the data that was

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1 sent to you by Mr. Petty for February? You see it goes
2 up to February 4th, 2008.

3 A. It looks to be.

4 Q. Okay. And again, even as of this time in
5 February you had no idea as to how to interpret this
6 information, correct?

7 A. That is correct.

8 MR. BRANDES: Your Honor, I move into
9 evidence Exhibit 1202.

10 THE COURT: So admitted.

11 (Exhibit No. P-1202 was received
12 in evidence.)

13 BY MR. BRANDES:

14 Q. Now, I want you to go back to Exhibit 1186, if
15 you don't mind. Let me know when you are there.

16 A. I am there.

17 Q. Okay. If you look at the exhibit on the
18 bottom right corner, there is a serial number. It
19 starts with TVK. Do you see that?

20 A. Yes.

21 Q. I would like you to turn to TVK-000189965. It
22 is about midway through the document, 189965.

23 If you turn to the previous page, 964, would
24 you agree with me that that shows data for December 7th,
25 2006?

1 A. Yes.

2 Q. And if you turn the page now to line item 23
3 on the spreadsheet, you see that?

4 A. Yes.

5 Q. It says "run over 4/27/06 Monitoring Well 10,
6 correct?

7 A. Yes.

8 Q. On that column G are there any other
9 indicators of monitoring wells being destroyed or run
10 over?

11 A. Well inaccessible.

12 Q. I am talking about destroyed or run over?

13 A. I don't see one.

14 Q. Okay. Now, if you go forward in the document
15 to page 189941. Let me know when you are there.

16 A. I am there.

17 Q. It still lists on that line 23 that monitoring
18 well destroyed, correct?

19 A. Yes.

20 Q. Now, with regard to the various data that you
21 were sent by Mr. Petty, were you aware of which data
22 went into the spreadsheet that you are talking about?

23 A. I was just -- the spreadsheet listed the names
24 and numbers for PZs and WPs and whatever I received I
25 just looked for that number and filled in the blank on

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1 that spreadsheet.

2 Q. So you are just looking at numbers and filling
3 in blanks. Not doing any analysis or doing any
4 interpretation?

5 A. None.

6 Q. Now, if you turn to Exhibit 1181, please. Let
7 me know when you are there.

8 A. I am there.

9 Q. That is an e-mail string from Mr. Williams to
10 Mr. Petty and ultimately the last e-mail on this string
11 on the first page is from Mr. Petty to Mr. Williams and
12 copied to you, is that right?

13 A. That is correct.

14 Q. You had already been receiving the data from
15 Mr. Petty as of January, right?

16 A. That is correct.

17 Q. Did Mr. Williams ever directly send you the
18 data?

19 A. Yes.

20 Q. When did they he start sending you the data
21 directly instead of through Mr. Petty?

22 A. It was about around this time frame when Lynn
23 took his new position.

24 Q. Now, was it the intention that you were going
25 to take over this data entry permanently?

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1 A. That was going to be the intention.

2 Q. When was it that you left your position and
3 went to Environmental?

4 A. My actual last day in Chattanooga was June 5th
5 of '08.

6 Q. When was it that your supervisor Mr. Petty or
7 other supervisor knew that you were going to be making
8 that change?

9 A. Late May.

10 Q. Okay.

11 A. About two weeks before that date.

12 Q. If you look at the bottom e-mail on the first
13 page of Exhibit 1181, it is an e-mail from Mr. Petty to
14 Mr. Williams dated April 28th. Do you see that?

15 A. Yes.

16 Q. He writes on the second paragraph, "I have
17 taken a new job in TVA and I'm still transitioning
18 somewhat. For the time being please send these reports
19 to Chris Hensley." Do you see that?

20 A. Yes.

21 Q. Was there any question in your mind that you
22 were only a temporary to work on this job or was it your
23 understanding that you were "the guy"?

24 A. I understood I was going to be the guy, but I
25 was until we had new supervisor in place I was just, I

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1 was still giving them to Lynn.

2 Q. Okay. I understand.

3 MR. BRANDES: Your Honor, if we can move
4 that into evidence, please.

5 THE COURT: Yes. What is that number
6 again?

7 MR. BRANDES: 1181. I believe it is
8 already in. I apologize.

9 THE COURT: Thank you.

10 BY MR. BRANDES:

11 Q. Now, if you turn to Exhibit 1217, I would
12 appreciate that.

13 (Exhibit No. P-1217 was marked for
14 identification.)

15 Q. This is an e-mail from Mr. Petty to you dated
16 April 28th, 2008, correct?

17 A. Yes.

18 Q. And he is forwarding to you the latest data to
19 add to the Geosyntec spreadsheet, right?

20 A. Yes.

21 Q. That is probably the April data, is that
22 right?

23 A. Yes.

24 MR. BRANDES: Your Honor, I move into
25 evidence Exhibit 1217.

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1 THE COURT: So admitted.

2 (Exhibit No. P-1217 was received
3 in evidence.)

4 BY MR. BRANDES:

5 Q. If you look at the next document, the next two
6 documents, I should say, Exhibits 1218 and 1219.

7 (Exhibit Nos. P-1218, 1219 were
8 marked for identification.)

9 Q. Let me know when you are ready.

10 A. I am ready.

11 Q. Exhibits 1218 and 1219 were the two
12 spreadsheets that were included with the e-mail exhibit
13 1217?

14 A. It looks to be. I don't remember exactly what
15 they look like.

16 Q. Exhibit 1218, what did you do with that data
17 once it came to you?

18 A. Since it was for monitoring wells, I didn't
19 look at it. I saw that they were MW-s and that wasn't
20 on the Excel spreadsheet, as far as what I needed to
21 fill in, so I didn't look at them.

22 Q. Okay. Did anybody ever give you any
23 instructions about that spreadsheet?

24 A. No. Well, the Geosyntec one, yes. This one,
25 the one that was from Matt, no.

1 Q. The one dealing with monitoring wells nobody
2 ever gave you an instruction on?

3 A. That's correct.

4 Q. But Mr. Petty was forwarding it to you every
5 month, right?

6 A. Because it was given as a set from Matt.

7 Q. Okay.

8 A. He just forwarded the entire e-mail to me.

9 Q. What would you do with the data from the
10 monitoring wells?

11 A. It wasn't on the spreadsheet for Geosyntec. I
12 never used it.

13 Q. What did you do with the data then? Did you
14 throw it out, keep it in your e-mail inbox? What did
15 you do with it?

16 A. Didn't keep it.

17 Q. You threw it out?

18 A. Yeah. I didn't need it. I wasn't keeping it.
19 It was a running Excel spreadsheet. You just keep
20 building every month.

21 Q. Did you bring to anybody's attention any of
22 the readings on Exhibit 1218 at any point in time?

23 A. No.

24 Q. What about any exhibits, any spreadsheets
25 similar to 1218 that you received from month to month,

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1 did you bring the data on those spreadsheets to any
2 one's attention at TVA?

3 A. No, it wasn't my job.

4 Q. Whose job was it?

5 A. My job was just filling the Excel spreadsheet,
6 print it off and give it to Lynn.

7 Q. Okay. Whose job was it to deal with the
8 monitoring well data?

9 A. I don't know.

10 Q. Exhibit 1219, that is the PZ, piezometer, data
11 you are talking about?

12 A. Yes.

13 Q. That is the one that you paid attention to?

14 A. That is the one where I would look at the
15 numbers, the PZ number, and I would go to the Geosyntec
16 Excel spreadsheet, look at that number and I filled it
17 in.

18 Q. Okay. When you filled in the information on
19 that spreadsheet were you supposed to make any notes as
20 to what the graph showed on the spreadsheet from
21 Geosyntec?

22 A. No. I just printed it off and gave it to
23 Lynn.

24 Q. You never made any memos about that?

25 A. It wasn't my job.

1 Q. Did Mr. Petty ever tell you anything, what to
2 do with the monitoring well data?

3 A. No, he didn't.

4 Q. Did you ever ask him what am I supposed to do
5 with this?

6 A. No.

7 Q. Did you have any idea what aspects -- did you
8 have any idea what portions of the impoundment for the
9 dikes or dredge cells those piezometers related to at
10 Kingston?

11 A. No, I didn't.

12 Q. Did you even know what a piezometer was?

13 A. I have heard of them. I don't know exactly
14 what they do.

15 Q. Did you even know what a monitoring well was?

16 A. I have heard of them. I have seen them.

17 Q. Did you know what their significance was at
18 Kingston?

19 A. No, I don't.

20 Q. Did you know what the significance of the
21 piezometers at Kingston were?

22 A. No, I don't.

23 Q. Do you know what role they played at all at
24 Kingston with regard to the stability for assessing the
25 stability of those dikes and dredge cells?

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1 A. No, I didn't.

2 MR. BRANDES: I would Your Honor, I would
3 like to move those two exhibits into evidence, please.

4 THE COURT: So admitted Plaintiff's
5 Exhibits 1218 and 1219.

6 (Exhibit Nos. P-1218, 1219 were
7 received in evidence.)

8 MR. BRANDES: Thank you, sir.

9 I would like you to turn now to Exhibit
10 2910.

11 (Exhibit No. P-2910 was marked for
12 identification.)

13 BY MR. BRANDES:

14 Q. Let me know when you are ready.

15 A. Okay.

16 Q. If you go to the last page of that exhibit.
17 It's an e-mail string. Your e-mail is the first in the
18 string on that last page. Do you agree that is an
19 e-mail from you to Mr. Williams dated May 27th, 2008?

20 A. Yes.

21 Q. And you wrote to him "Matt, I will be leaving
22 the Civil Group here June 5th so Jamey Dotson will be
23 the new contact to send the monitor information to. He
24 will be keeping the spreadsheet and looking at the
25 information. Thank you."

1 A. Yes, sir.

2 Q. Did you ever have a conversation with
3 Mr. Williams about the monitoring data?

4 A. No, I haven't.

5 Q. You just exchanged an e-mail with him?

6 A. Yes.

7 Q. Did Mr. Dotson ever speak with you about the
8 data?

9 A. No, he didn't.

10 Q. Did he ever e-mail with you about that?

11 A. I don't recall of any.

12 Q. Did he ever come to you or e-mail you, for
13 example, to say, hey, I am taking over from you on this
14 data. What am I supposed to do or how is it supposed to
15 work?

16 A. I showed him what he is supposed to. That is
17 it.

18 Q. What did you show him he is supposed to do?

19 A. Probably right before I left.

20 Q. So sometime in June, early June?

21 A. Late May or early June.

22 Q. You actually -- you had a face to face with
23 him?

24 A. Yes.

25 Q. And you told him where things were kept?

1 A. Yes.

2 Q. You showed him where stuff was on the
3 computer --

4 A. Yes.

5 Q. -- specific to this monitoring and data?

6 A. Yes.

7 MR. BRANDES: Your Honor, I move into
8 evidence Exhibit 2910.

9 THE COURT: So admitted.

10 (Exhibit No. P-2910 was received
11 in evidence.)

12 BY MR. BRANDES:

13 Q. Sir, if you turn to the next exhibit, 239.
14 (Exhibit No. P-239 was marked for
15 identification.)

16 Q. That is an e-mail at the top of the page from
17 Mr. Dotson to Mr. Buttram copied to you, is that right?

18 A. That is correct.

19 Q. That is dated July 7th, 2008, correct?

20 A. Yes.

21 Q. Several weeks after you met with Mr. Dotson
22 and transferred the duties over to him, right?

23 A. Yes.

24 Q. And he wrote to Chris Buttram, "Chris B, if
25 you can contact Chris Hensley, he can tell you where he

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1 left this information on our server and probably walk
2 you through the process. I never actually received
3 anything on this after Chris H left our group, so I have
4 never updated the spreadsheet." Is that right?

5 A. That is correct.

6 Q. You met with him and you told him where
7 everything was, right?

8 A. Yes. He knew that.

9 MR. BRANDES: Your Honor, I move into
10 evidence Exhibit 239.

11 THE COURT: So admitted.

12 (Exhibit No. P-239 was received in
13 evidence.)

14 BY MR. BRANDES:

15 Q. Did you perform any engineering function at
16 TVA?

17 A. No, I did not.

18 MR. BRANDES: That is all I have, Your
19 Honor.

20 THE COURT: Thank you. Cross-examination.

21 **CROSS EXAMINATION**

22 BY MR. MARQUAND:

23 Q. Good afternoon, Mr. Hensley.

24 A. Good afternoon.

25 Q. I show you Plaintiff's Exhibit 1214. You

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1 identified this as the e-mail where Mr. Petty assigned
2 you to maintain the Geosyntec spreadsheet, correct?

3 A. That's correct.

4 Q. Were there attachments to this?

5 A. Yes.

6 Q. What was attached?

7 A. The master which would be the Geosyntec file
8 and the two or three files from Matt.

9 Q. Let me show you what has been marked for
10 identification as Plaintiff's Exhibit 287. The first
11 page indicates it's "groundwater level data entry and
12 viewing directions." Did you ever see that before?

13 A. Yes, that was in a separate e-mail, when I
14 received the Geosyntec file.

15 Q. And what was this?

16 A. This was basically the directions on how to
17 fill out the spreadsheet.

18 Q. I show you Page 2 of that. Can you read that
19 from there? Can you tell us what that is?

20 A. That was the actual first like notebook sheet
21 in the file that listed all the well IDs and you would,
22 each month you would enter these numbers for each of
23 these PZs and WPs.

24 Q. The well IDs, are they in the first column?

25 A. Yes.

1 Q. And the wells are identified how?

2 A. You got PZs and WPs.

3 Q. And so it was your responsibility to enter
4 wells corresponding to those IDs into this worksheet?

5 A. Yes.

6 MR. MARQUAND: Your Honor, we tender
7 Plaintiff's Exhibit 287.

8 MR. BRANDES: No objection.

9 THE COURT: So admitted.

10 (Exhibit No. P-287 was received in
11 evidence.)

12 BY MR. MARQUAND:

13 Q. Now, counsel introduced a number of the
14 monthly assignments from Mr. Petty to you saying here is
15 the latest to add to the Excel spreadsheet, right?

16 A. Yes.

17 Q. And each one of them had attached to it -- had
18 two attachments, correct?

19 A. Yes.

20 Q. And what were those attachments?

21 A. They were both files from Matt.

22 Q. On this particular one, this is the April 28th
23 data for the month of April. There is, was an
24 attachment, the first one was Plaintiff's Exhibit 1218.
25 What data was that? Can you tell by looking at the

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1 column on the right-hand side?

2 A. They were MW-s.

3 Q. Did that go into the spreadsheet?

4 A. No, it did not.

5 Q. Did you attempt to put them in the
6 spreadsheet?

7 A. No. I mean, what Geosyntec sent me, that is
8 what I used.

9 Q. And the other attachment was Plaintiff's
10 Exhibit 1219. Can you tell us what that is?

11 A. They are listed as PZs.

12 Q. Did you put those PZ, that PZ information,
13 that is the first page. I will show you the second page
14 which has the specific depth of water in them. Did you
15 put that in a spreadsheet?

16 A. Yes, I did, if the numbers matched.

17 Q. Okay. I will turn a little further over into
18 this Plaintiff's Exhibit 1219. We come to another chart
19 of well points. Can you tell us what that is?

20 A. They were WPs.

21 Q. Did you put that information in the
22 spreadsheet?

23 A. If the numbers showed up on the Excel
24 spreadsheet, yes, I did, for Geosyntec.

25 Q. You put the WP information there, if you had

1 well IDs for that?

2 A. Yes, if it was on the Geosyntec list, I put
3 them in.

4 Q. Okay. Once you put them into the spreadsheet,
5 what did you do with that information?

6 A. I would go to the next tab where it would form
7 the graphs, print them out and then I took them and
8 personally gave them to Lynn.

9 Q. Let me show you Plaintiff's Exhibit 287, page
10 1668. Can you tell us what that is?

11 A. That would be a monthly printout of the
12 information from the Geosyntec spreadsheet.

13 Q. That is the output for the information that
14 you could put in?

15 A. Yes, that is the output.

16 Q. Let me show you the last page of Plaintiff's
17 287, Page 1677. Can you tell us what that is?

18 A. That would be, that is the output down at the
19 bottom. That is the graph. On top that is listing the
20 PZs and WP well ID numbers and the number of depth of
21 water that I took from Matt's spreadsheet and it shows--

22 Q. This specific chart is for October of 2007.
23 Is that what you received or is that one that you
24 actually created?

25 A. I never created that one.

1 Q. So this would be an example of one that came
2 to you in this Plaintiff's 287?

3 A. Yes, that would be a, that was something that
4 I received.

5 Q. Okay. Let me show you page out of Plaintiff's
6 606. I want to show you Page 2 which is December of
7 2007 of Plaintiff's 606. Is that a page that you would
8 have outputted based on information that you put into
9 that spreadsheet?

10 A. That is correct.

11 Q. And what did you do with that output once you
12 created it?

13 A. I give it to Lynn.

Q. Do you know what he would do with it?

15 A No idea

16 MR. MARQUAND: Thank you, Mr. Hensley. No
17 further questions.

18 THE COURT: Thank you. Mr. Brandes, any
19 redirect?

20 MR. BRANDES: Just a couple, Your Honor.

BEDRECT EXAMINATION

22 BY MR. BRANDES:

23 Q. Mr. Hensley, you mentioned in response to
24 Mr. Marquand's question you said, I believe I got it
25 down here, that Geosyntec sent you information.

1 Geosyntec never sent you anything, did they?

2 A. No, they, that spreadsheet went from Geosyntec
3 to Lynn and Lynn forwarded it to me.

4 Q. I just want the record to be clear. You have
5 never had any direct communication with Geosyntec,
6 correct?

7 A. I never had any connections to them. I just
8 received it from Lynn as a forwarded e-mail.

9 Q. You said something about it is on the
10 Geosyntec list. What did you mean by that?

11 A. The one that is entered at 287. This was when
12 I received the Excel spreadsheet -- that is what I
13 received from them.

14 Q. The yellow graph. Can you show that to the
15 judge so he knows what we are talking about. Thank you.

16 A. It had all the well IDs on it already.

17 Q. Were you aware that Geosyntec wanted the
18 monitoring wells tracked as well?

19 A. No.

20 MR. BRANDES: Thank you.

21 THE COURT: May the witness be excused?

22 MR. BRANDES: With the proviso of the
23 witness sequestration.

24 THE COURT: Is that how you want all of
25 the witnesses excused?

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1 MR. BRANDES: Yes, Your Honor.

2 THE COURT: I am telling everybody you are
3 still under subpoena. The attorneys for TVA will let
4 you know if you need to come back as a witness for any
5 reason. In the meantime you shouldn't talk about your
6 testimony with any of the other potential witnesses in
7 this case or discuss with them any of their testimony.

8 Thank you. You are excused for now.

9 THE WITNESS: Thank you.

10 THE COURT: We ready with your next
11 witness?

12 MS. ANDERSON: Yes, Your Honor.

13 Plaintiffs call John Albright, please.

14 JOHN ALBRIGHT

15 was first duly sworn and testified as follows:

16 COURTROOM DEPUTY: Please state and spell
17 your name for the record.

18 THE WITNESS: John Albright.

19 **DIRECT EXAMINATION**

20 BY MS. ALEXANDER:

21 Q. Good afternoon, Mr. Albright. My name is
22 Elizabeth Alexander. I don't think we have met. I
23 represent some of the plaintiffs in this matter.

24 You have a BS in civil engineering, is that
25 correct?

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1 A. That is correct.

2 Q. Do you have any other formal education beyond
3 that?

4 A. I have several seminars that I have taken over
5 the years in different fields of civil engineering.

6 Q. Okay. Do any of them have anything to do with
7 dike engineering?

8 A. There have been two or three on slope
9 stability for landfills and rock and soil stability.

10 Q. When were those?

11 A. I don't remember exact dates. Sometime in the
12 last approximately 15 years.

13 Q. That is a pretty good spread. Anything that
14 might have been in the last five years or more than
15 that?

16 A. I can't remember.

17 Q. Okay. What about dam engineering?

18 A. Nothing specifically about dam engineering.

19 Q. Okay. You are not a Licensed Professional
20 Engineer are you?

21 A. I am not.

22 Q. Have you ever tried to take the exam to be a
23 Licensed Professional Engineer?

24 A. I have not.

25 Q. You are not a geotechnical engineer, is that

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1 correct?

2 A. No.

3 Q. And what is your current position with TVA?

4 A. My job title is senior civil engineer.

5 MS. ALEXANDER: Your Honor, we call this
6 witness as an adverse witness as well.

7 THE COURT: You may proceed.

8 BY MS. ALEXANDER:

9 Q. How long have you been with the TVA?

10 A. Just over 30 years now.

11 Q. Have you -- let me ask you this. You left the
12 TVA and went to work for the Corps of Engineers for one
13 year, correct?

14 A. That is correct.

15 Q. That is the only time since 1979 you haven't
16 worked for the TVA?

17 A. Yes, that is correct.

18 Q. Let's start when you -- I don't want to go all
19 of the way back to 1979. When did you first start doing
20 work at Kingston Fossil Plant?

21 A. Around 1985.

22 Q. And so take me through the things that you
23 have done for Kingston Fossil Plant starting at that
24 time?

25 A. My first assignment was in a section called

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1 Waste Planning and Disposal. We planned new projects
2 for, you know, disposal of the byproducts from the
3 plant.

4 The next, the next job I had was the Corps of
5 Engineers. I returned after a year to be an
6 environmental engineer. My job title was environmental
7 engineer for several years. I worked in permitting and
8 various areas along that line and then somewhere about
9 1994 I transferred into the Engineering Group that I am
10 still in.

11 Q. Okay. Who have you reported to during the
12 time you have been in the Engineering Group?

13 A. Who have I reported to?

14 Q. Right. You do have somebody over you I assume
15 you report to, Mr. Petty or Mr. Snider?

16 A. I have had several supervisors, Mr. Petty and
17 Snider were two of them.

18 Q. They were principal engineers at that time?

19 A. I believe so.

20 Q. So then at that, during that time when you
21 went, were you in the Engineering Design Services
22 Department of TVA, is that correct?

23 A. It had that title for some of the time, yes.

24 Q. Can you tell us when it had the title?

25 A. That would have been in the last eight or so

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1 years, I guess.

2 Q. Okay. In 2008 would you have been in the
3 Engineering Design Services Department?

4 A. I believe that is the title at that point,
5 yes.

6 Q. They refer to that as EDS, is that correct?

7 A. We did often.

8 Q. You have conducted a number of stability
9 studies at TVA, correct?

10 A. I have.

11 Q. When was the first time you did a stability
12 inspection of the Kingston Fossil Plant dikes?

13 A. The first time I participated in a pond
14 inspection at Kingston was in 1986, I believe.

15 Q. Okay. At any time before you conducted an
16 inspection of the Kingston Fossil Plant coal ash
17 empowerment for stability, did you see any design
18 drawings?

19 A. I have in the past seen the design drawings.
20 I can't tie them to a specific time or relate them to a
21 specific inspection.

22 Q. Do you think you saw them in conjunction with
23 conducting that inspection so that you saw them in order
24 to prepare yourself for the inspection?

25 A. I don't remember doing that. That was not the

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1 intent of the inspection so there would not have been a
2 great need to review the design drawings.

3 Q. Okay. So do you mean by saying that wasn't
4 the intent of the inspection, that it wasn't the intent
5 of the inspection to look at the dams to determine if
6 they were constructed in accordance with the design
7 drawings?

8 A. That's correct. We were not inspecting for
9 as-built condition.

10 Q. And are you aware of any inspections that were
11 done to determine if the construction of the dredge
12 cells was done in accordance with the design drawings?

13 A. I am not aware of that.

14 Q. Okay. Have you been given any instructions by
15 TVA as to what to look for, when you conduct a dike
16 stability inspection?

17 A. Yes.

18 Q. What instructions were you given?

19 A. I don't know that I can list them all. We
20 were all taught to look for, you know, erosion,
21 vegetation, the kind of vegetation, the condition of it,
22 you know, different changes in slope, we look for seeps,
23 we look for maintenance issues. There were lots of
24 different things that we were looking for.

25 Q. Okay. I am going to show you, I want you to

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1 take a look at -- this is your deposition testimony at
2 Page 73, line 20 through 24. The question was, "At any
3 time were you given any instructions by anyone at TVA as
4 to what to took for during the course of the dike
5 stability inspection in Kingston?" Your answer was, "I
6 do not remember any."

7 Have you, has someone refreshed your
8 recollection or instructed you between the time of your
9 deposition and today as to what you needed to look for
10 during a stability inspection?

11 A. Would you ask that question again.

12 Q. Is there a reason that you didn't remember
13 anything that you were supposed to look for during your
14 deposition, but today you know things that you might
15 need to look for during a stability inspection?

16 A. I suppose it's a difference in the way you
17 asked the question. You know, there were things we knew
18 to look for. Were there written instructions? I was
19 not aware of any.

20 Q. Okay. That is fair enough. Did you have any
21 training with respect to how to perform a dike stability
22 inspection?

23 A. We did have on-the-job training. The more
24 experienced engineers would teach the less experienced
25 or younger engineers how to do the inspections.

1 Q. Okay. Here again, Mr. Albright, when you were
2 deposed back in July you were asked, "Were you trained
3 on how to perform those inspections generally?" And you
4 said, "I don't recall any training to do dike
5 inspections." Is that correct?

A. Where are you looking?

7 Q. Right here on page 74. "Were you trained on
8 how to perform those inspections generally?" Your
9 answer was, "I do not recall any training to do dike
10 inspections."

Has something changed between July of 2009 and today that has allowed you to recall your training?

13 A. No, I don't think so. I am not sure exactly
14 what you are asking me.

15 Q. I am just trying to find out what the
16 difference is, why there is a difference between your
17 answer there. I think I am asking you the same
18 question.

19 A. I don't recall the specifics or the particular
20 instances where I was trained to do these inspections.
21 To this day I do not.

22 Q. Okay, thank you. You have a set of exhibits
23 in front of you. If you could, please, sir, locate
24 Exhibit Number 538.

(Exhibit No. P-538 was marked for

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identification.)

BY MS. ALEXANDER:

Q. Okay. Mr. Albright, before you, before the December 22, 2008, dike failure at Kingston, did you ever see Exhibit 538?

A. I did not.

Q. Just for the record, this is the Tennessee Valley Authority engineering procedure for Inspection and Maintenance of Ash Disposal Areas, is that correct?

A. The title is Inspection and Maintenance of Ash Disposal Areas.

Q. Okay. Take a look at if you would, please, Page 1, it says number 1 down at the bottom. There is Section 6.0 right above the page number. Mr. Albright, the bottom of the page there is a section called Inspections by P broad plant operating personnel. It says "regularly scheduled inspections will be made by plant operating personnel as outlined in Section 8.0." You haven't had a chance to review Section 8.0, which is on the next page, have you?

A. Not recently.

Q. You said you didn't see this document before the December 22nd dike failure?

A. I had not.

Q. You didn't see this section before that?

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1 | A. No.

2 Q. And then you didn't ever use this instruction
3 as a checklist, when you did inspections, did you?

4 A. No.

5 Q. There is another exhibit in front of you,
6 Exhibit 563. Have you had a chance to look over it
7 little bit?

10 A. Okay.

Q. Have you seen this document before today?

12 A. I think I have seen one similar, if not this
13 one.

14 Q. In what context do you think you may have seen
15 this document?

16 A. I was shown this after the failure at
17 Kingston.

18 Q. You never saw it before the failure at
19 Kingston?

20 A. I did not.

Q. Who showed it to you afterward?

22 A. At this point, I am not sure.

23 Q. Do you remember the context in which it was
24 showed to you?

25 A. I don't.

1 Q. That is okay. Did you ever use any checklist
2 or documents other than the previous year's inspection
3 report, when you conducted inspections of the dikes for
4 stability at the Kingston Fossil Plant?

5 A. I have not.

6 Q. All right. I want to talk a little bit about
7 the things that you said you would look for, when you
8 conducted an inspection. One of them was erosion, is
9 that correct?

10 A. Yes.

11 Q. And when you conducted your inspections you
12 were not aware that erosion could cause a stability
13 problem in the dikes were you?

14 A. Would you repeat that again, please.

15 Q. Were you aware at the time you conducted
16 inspections prior to December 22nd, 2008, for stability
17 at the Kingston Fossil Plant dikes that erosion could
18 cause a stability problem?

19 A. Was I aware?

20 Q. Yes.

21 A. Yes.

22 Q. Well, did you think it was a problem for
23 stability or did you think it was a problem for
24 maintenance?

25 A. It depends on how severe it gets. It could be

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1 both or either.

2 Q. Okay. Mr. Albright, I want you to take a look
3 at Page 76 of your deposition, if you would. You were
4 asked, "Is erosion a potential problem? And your answer
5 was, "I don't think I would classify it as a potential
6 problem, but it can be a maintenance issue."

7 A. Again it goes back to how severe it is.

8 Q. What is your understanding of how severe
9 erosion has to be before it becomes a stability problem?

10 A. My understanding?

11 Q. Do you have an understanding of that?

12 A. I don't know that I can describe at what point
13 it becomes a stability issue and what point it doesn't.
14 I don't know how to quantify that. It is just sort of a
15 visual observation and a judgment call.

16 Q. Okay. When you were conducting stability
17 inspections at the Kingston Fossil Plant dikes, were you
18 aware that trees on the dike could cause a stability
19 problem?

20 A. There has been a lot of discussion in several
21 areas internal of TVA and outside as to whether or not
22 it's actually a stability issue. We prefer not to have
23 trees on the dikes.

24 Q. When you were conducting inspections -- I am
25 sorry, I have to remember my question. I don't think

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1 your answer addressed it. When you were conducting
2 inspections before the failure at Kingston did you know
3 that trees could cause stability problems?

4 A. I believe I answered that correctly.

5 Q. What was your answer?

6 A. My answer was that there has been a lot of
7 discussion as to whether or not it is in fact a
8 stability issue both inside and outside of TVA. We
9 prefer not to have trees on the dikes.

10 Q. All right. Mr. Albright, when you were
11 deposed in July and asked the question whether trees
12 cause stability questions on dikes you answered, "I have
13 no knowledge that that's a stability thing with the
14 dike." Was that -- did I read that correctly?

15 A. It was difficult to read it on the screen
16 here.

17 Q. I will give you another opportunity.

18 A. Again, I think that there is a lot of
19 discussion about it. We have had discussions internal,
20 we know that there are others outside of TVA that, you
21 know, have both points of view.

22 Q. Have the discussions taken place because of
23 the dike failure?

24 A. No.

25 Q. Have they taken place since the dike failure?

1 A. Both before and after.

2 Q. Okay. But you testified in July that you had
3 no knowledge that that is a stability thing with the
4 dike, is that correct?

5 A. It is, depending on the condition I don't
6 believe it is necessarily a stability issue with the
7 dike.

8 Q. Okay. I will move on.

9 Is there some reason that you gave a different
10 answer today than you did back in July?

11 A. Not that I am aware of. Perhaps it is the way
12 the question is asked.

13 Q. Have you had an opportunity to train other
14 people within the TVA as to how to conduct stability
15 inspections, and in particular with the Kingston Fossil
16 Plant dike?

17 A. I have.

18 Q. And when you train people to conduct
19 inspections, is it fair to say that you train them to
20 use the prior year's inspection report as a check list?

21 A. Yes, we did.

22 Q. Okay. Did you ever provide them with any
23 other documents regarding the impoundment?

24 A. I don't remember specific documents.

25 Q. Were there any, any documents?

1 A. I don't remember any specific documents.

2 Q. Okay. Did you ever refer to any other
3 documents while you were conducting inspections?

4 A. No. I don't remember referring to any.

5 Q. And you didn't refer to the design drawings,
6 is that correct?

7 A. No. I am sorry, that's correct. We were not
8 out there to survey the design drawings.

9 Q. And you never trained anyone to refer to the
10 design drawings, is that correct?

11 A. That is correct.

12 Q. Did you ever look for seeps while you
13 conducted stability inspections?

14 A. Yes.

15 Q. What was your understanding at the time as to
16 why you were looking for seeps during stability
17 inspections?

18 A. A seep is an undesirable condition. Depending
19 on the exact situation, it can be a stability issue.

20 Q. At the time that you were conducting
21 inspections did you understand it was a stability issue?

22 A. Yes. It could be a stability issue.

23 Q. Again, Mr. Albright, you were deposed in July
24 and you were asked the same question as to whether you
25 understood at the time you were conducting inspections

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1 why you looked for seeps on the dikes. I would like to
2 refer you to your testimony.

3 "Why would you spend your time looking for
4 seeps during a dike stability inspection? Answer; It's
5 just one of the things we looked for." Objection;
6 Argumentative. You may answer. Answer; I don't know.
7 I don't understand. Question; Well, is it fair to say
8 that you instructed TVA personnel performing dike
9 stability inspections to identify seeps as part of that
10 work? Answer; yes, that was one of the items we were
11 supposed to identify, if we found any. Okay, could you
12 fairly describe to me why you understood it was
13 something that TVA employees should be spending their
14 time doing? Actually I can't, cannot, no."

15 So is it your testimony that you were wrong on
16 the day of your July deposition, that you didn't
17 understand at the time you conducted inspections why you
18 we are looking for seeps?

19 A. I am not sure how to answer that. We do look
20 for seeps. You know, depending on the situation it can
21 be more of a problem than other times. It can be an
22 environmental issue. There is a lot of reasons why you
23 look and identify seeps.

24 Q. But you agree with me, don't you, at the time
25 of your deposition in July when you were asked why you

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1 looked for seeps on the dikes during the stability
2 inspection you said you could not say. Is that correct?

3 A. That is what I said in the deposition.

4 Apparently by the way the question was asked I did not
5 understand what he was looking for.

6 Q. It is not a tricky question. Why would you
7 spend your time looking for seeps during a dike
8 stability inspection. You said I can't answer. I don't
9 know. Is that correct?

10 A. If that is what is written. It is apparently
11 correct.

12 Q. Thank you. Did you train other people to look
13 for seeps?

14 A. Yes.

15 Q. And did you explain to them why they were
16 looking for seeps?

17 A. I don't remember specifically explaining why
18 we were looking for seeps.

19 Q. Would you agree with me, Mr. Albright, that
20 one of the reasons that a person would conduct a
21 stability inspection of the dikes at Kingston Fossil
22 Plant is to determine whether or not the dikes were
23 stable?

24 A. Yes. To the extent that we could examine them
25 visually and determine something of that sort.

1 Q. A visual inspection was the extent of your
2 inspection of the dikes, is that correct?

3 A. That is correct.

4 Q. So I want you, if you would, to just sort of
5 help me, walk through with me how you would prepare a
6 stability inspection report.

7 A. Please ask that again, how I would prepare a
8 stability inspection report.

9 Q. You have wrote a number of reports, correct?

10 A. I have.

11 Q. You sit down at your computer, right? Do you
12 do them on the computer?

13 A. Normally, yes.

14 Q. Okay. Do you start with a blank sheet of, a
15 blank screen or do you start with some, a template?

16 A. Often I start with a previous report. This is
17 done after the inspection. I use the notes that I made
18 during my walking inspection and either edit or revise
19 the previous inspection or rewrite each section in the
20 inspection report based on what I had seen.

21 Q. Often in our office we call that duping and
22 revising. Have you ever heard that term?

23 A. I have not.

24 Q. After you have prepared a report, who
25 typically would review it?

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1 A. Most often my supervisor would. Occasionally
2 we would have a peer review or engineer of an equal
3 level review it as well.

4 Q. What was your understanding of the purpose of
5 preparing the annual dike stability inspection report?

6 A. The purpose varied at times. Some years we
7 were required by our permit, state permit to perform
8 these things. We adjusted the format accordingly. It
9 was an annual inspection of the condition and apparent
10 stability of the dikes that we did.

11 Q. I know you did it. I am asking why you did
12 it. You did it to comply with the permit?

13 A. Some years that was a permit requirement from
14 the state.

15 Q. Was there any other reason that you prepared
16 an annual stability inspection report?

17 A. Outside of being instructed to do so, I don't
18 know of another reason.

19 Q. Did you ever review any other person's
20 stability inspection report in the capacity of a
21 supervisor? As a supervisor, did you review anyone
22 else's draft report?

23 A. No.

24 Q. Do you agree that each year engineering made
25 recommendations for -- that the preparer of the report

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1 would make recommendations within the report for items
2 that were to be done the following year?

3 A. Engineering did make recommendations in each
4 report.

5 Q. Then the reports also have a section titled
6 Actions on Recommendations of Last Inspection. What was
7 the purpose of that section of the report?

8 A. It documented the actions taken on previous
9 recommendations.

10 Q. Did you try to be thorough in documenting the
11 actions taken on the previous recommendations?

12 A. I did.

13 Q. Mr. Albright, you have in front of you an
14 exhibit that is numbered 2552.

15 (Exhibit No. P-2552 was marked for
16 identification.)

17 BY MS. ALEXANDER:

18 Q. Let me back up, if I may, and move Exhibit 563
19 into evidence.

20 THE COURT: So admitted.

21 (Exhibit No. P-563 was received in
22 evidence.)

23 BY MS. ALEXANDER:

24 A. What was that number again, please?

25 Q. 2552.

1 A. I don't believe I have 2552. I have 2553.

2 THE COURT: Let's see if we can use the
3 screen. Mr. Albright, if you need the actual physical
4 copy --

5 THE WITNESS: This is a better image than
6 previous.

7 THE COURT: We'll try to use the screen.
8 If you need a hard copy, let us know.

9 BY MS. ALEXANDER:

10 Q. Do you recognize this cover page,
11 Mr. Albright?

12 A. I believe so.

13 Q. And you prepared the dike stability inspection
14 report for the inspection that was enclosed with this
15 cover letter, is that correct?

16 A. It says so.

17 Q. Okay. It says that inspection occurred on
18 October 24th, 2001, correct?

19 A. It does.

20 Q. Mr. Albright, at the bottom of the cover page
21 which is the cover page for the inspection, the next
22 page, it says that the report was prepared on November
23 9, 2001, is that correct?

24 A. It says so, yes.

25 Q. All right. And if you go to the first

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1 paragraph of the next page it says that "The waste
2 disposal areas at Kingston Fossil Plant were inspected
3 for dike structural stability on October 21, 2001." Is
4 that the purpose of the inspection, to inspect for dike
5 structural stability?

6 A. To the extent that we can see stability from
7 visual observation of the surface, yes, that is correct.

8 Q. Would there be, was there ever a time when
9 there was something obstructing your view so that you
10 couldn't see something that might have been a stability
11 problem?

12 A. Possibly, you know, that is sort of leading.
13 I don't know how to answer that kind of question.

14 Q. You did a number of inspections. Was there
15 ever a time when you felt like you couldn't see the dike
16 and that there was something blocking your view and
17 keeping you from determining whether there a stability
18 problem?

19 A. Do you have something specific in mind that
20 was blocking my view?

21 Q. You said you conducted a visual inspection and
22 you might not be able to determine based on a visual
23 inspection. I am trying to find out from you what you
24 have in mind that might be there that you couldn't see?

25 A. What I meant by visual inspection is what you

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1 can see on the surface may not fully indicate what could
2 be under the surface that no one can see.

3 Q. Okay. Was there ever an excessive amount of
4 vegetation on the surface you thought might have
5 hampered your ability to conduct a visual inspection?

6 A. Possibly.

7 Q. Going back to this report, it looks like you
8 conducted the inspection on October 24th and you issued
9 the report on November 9th. Is that correct?

10 A. That is what it indicates.

11 Q. So it just took you a couple of weeks, is that
12 right?

13 A. It was released on December 12th. It took a
14 little more than a couple of weeks to get it done.

15 Q. Okay. You prepared it on November 9th,
16 correct?

17 A. That is when I initiated preparation,
18 apparently.

19 Q. So this November 9th date isn't the date it
20 was finalized?

21 A. The date it was released is the date on the
22 cover letter.

23 Q. Right. So just let's back up for a second.
24 You would finalize this document on November 9th and you
25 would send it to -- who would you send it to after that?

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1 A. I did not say I finalized it on November the
2 9th.

3 Q. What is the significance of the November 9th
4 date?

5 A. At this point this far in the past, I can't
6 remember why that date was chosen.

7 Q. Fair enough. How long did it typically take
8 you to write a stability inspection report?

9 A. Approximately a month. It would depend on
10 workload at the time.

11 Q. Okay. A few minutes ago you testified that
12 you conducted inspections in order to, and prepared
13 reports in order to comply with permit requirements. Do
14 you know what permit you were complying with by
15 preparing a report?

16 A. It's my understanding that in some years our
17 water permit, called an MPDES permit, was requiring an
18 annual inspection.

19 Q. Okay. If you will go to Page 1 of the report,
20 Exhibit 2552. Under active ash disposal areas the last
21 paragraph if you will notice there in the middle of that
22 paragraph it says "The dikes were in need of mowing, as
23 several small trees had grown to a height of three to
24 five feet." Did I read that correctly?

25 A. It does say that.

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1 Q. Would you have recorded that accurately at
2 that time?

3 A. I suppose so.

4 Q. Okay. If you go to Page 2 of the report,
5 please under "Dredge Cells," second paragraph. It says,
6 "Dike slopes around the area were all stable with some
7 rill erosion in places." Did I read that correctly?

8 A. Yes.

9 Q. Did you report that accurately?

10 A. Yes, I suppose so.

11 Q. I hope you can locate Exhibit 2553.

12 THE COURT: You want to introduce 2552?

13 MS. ALEXANDER: Yes, Your Honor. Thank
14 you.

15 THE COURT: Without objection, so
16 admitted.

17 (Exhibit No. P-2552 was received
18 in evidence.)

19 (Exhibit No. P-2553 was marked for
20 identification.)

21 BY MS. ALEXANDER:

22 A. Okay.

23 Q. I am going to ask you to go back to 2552 just
24 for a second. I want to cover one more thing. If we
25 can go to 510704.

1 THE COURT: While you are doing that --
2 maybe it's just me. On the page you talk about rill,
3 r-i-l-l erosion. What does that refer to?

4 THE WITNESS: Very small areas of erosion.
5 It has a ribbon-like look to it. Typically, you know,
6 two to four inches wide and maybe two inches deep.

7 THE COURT: Thank you.

8 BY MS. ALEXANDER:

9 Q. This is the last few pages of the 2001
10 inspection. The title is Summary -- Kingston Dredge
11 Cell Dike Stability Inspection of Dikes With One Hundred
12 Percent Fly Ash. Do you recall this analysis being
13 done?

14 A. What page are you on again, please?

15 Q. I am on page, it is up on the screen. It's
16 page 510704. It's about four pages to the last.

17 A. I see it.

18 Q. Do you recall this inspection or this study
19 being done?

20 A. I remember when it was done, yes. I did not
21 perform this analysis.

22 Q. Did you have -- did you review it at the time?

23 A. I did not.

24 Q. It was part of your inspection report?

25 A. Yes.

1 Q. Is there a reason you didn't review it?

2 A. I included this because it, including it in
3 the report made it easy and quick to retrieve. It
4 would, this made finding this analysis simple and fast
5 should a question come up about it.

6 Q. Okay. You have identified I think in your
7 stack Exhibit 2553, correct?

8 A. Yes.

9 Q. And that is the stability inspection report
10 for the next year, is that correct?

11 A. Yes.

12 Q. You prepared that report?

13 A. It appears so, yes.

14 Q. Okay. Let's go back to the study that was
15 attached to the 2001 inspection. In the last paragraph
16 it says, "An increase in localized sloughing of dikes is
17 likely to occur. We expect this to be tolerable and to
18 best be handled by daily inspections and rapid attention
19 to small rills before they expand."

20 A. What page is that on, please?

21 Q. 510705.

22 A. Okay, I see it.

23 Q. So having not read this report, you weren't
24 aware of that recommendation, when you conducted the
25 inspection for the next year, is that correct?

1 A. I don't think that is correct. Ask it again,
2 please.

3 Q. You just testified that you didn't read this
4 study about the use of one hundred percent fly ash in
5 the dikes. My question to you is when you conducted the
6 inspection the next year you weren't aware of this
7 recommendation to have daily inspections and have rapid
8 attention to small rills before they expand, correct?

9 A. I did not testify to that. I did not testify
10 I did not read this. I testified I did not review the
11 stability analysis. In my engineering parlance "review"
12 is a technical check. I did not do that.

13 Q. But you read it?

14 A. Of course.

15 Q. Okay. Well, we are speaking different
16 languages, I suppose. You were aware of this
17 recommendation, when you conducted the inspection the
18 next year, is that correct?

19 A. I don't view this as a recommendation. I knew
20 to, I knew that pure fly ash dikes would have a tendency
21 to erode much more easily than dikes constructed of fly
22 ash and bottom ash.

23 Q. And were you aware that rapid attention needed
24 to be paid to small rills before they expanded because
25 of that?

1 A. I agree that rapid attention should be given
2 to it, yes.

3 Q. But you disagree that this is a
4 recommendation?

5 A. I do not view that as a recommendation, no.
6 It's a statement.

7 Q. Okay. All right, let's take a look at the
8 2002 inspection report. Before we do, do you know if
9 TVA conducts daily inspections of the Kingston fossil
10 dikes?

11 A. I am not certain if it is done daily. The
12 plant people do frequent inspections. I know they do it
13 after a rain event. I know there are several triggers
14 in addition to a periodic inspection, but I am uncertain
15 as to exactly what the frequency is.

16 Q. So you don't understand that they do daily
17 inspections, but they do frequent inspections, is that
18 your testimony?

19 A. I am aware that they have done frequent
20 inspections, yes, on a periodic basis.

21 Q. Okay. So the 2002 inspection, if you will
22 turn to the first page, please. Again it says that the
23 dikes were inspected for structural stability, correct,
24 at the top?

25 A. Yes.

1 Q. And again, if you will look at the last
2 paragraph, you have identified the fact that there are
3 small trees that have grown five feet tall on the dike,
4 is that correct?

5 A. Would you, which paragraph is that, please?

6 Q. The last paragraph on the first page.

7 A. Yes.

8 Q. Okay. That is the same issue that you
9 identified the previous year, correct?

10 A. It is.

11 Q. Okay. The bottom of that paragraph it states
12 that you have identified rill erosion, correct?

13 A. Yes.

14 Q. And that was also identified in the previous
15 report?

16 A. Yes.

17 Q. Is that correct?

18 A. Yes.

19 Q. If you can turn to Page 2, please. Under
20 dredge cells the second paragraph at the first sentence
21 it says "Dike slopes around the area were all stable
22 with some rill erosion in places," is that correct?

23 A. That is correct.

24 Q. And did you make a recommendation that those
25 should be given rapid attention?

1 A. I did not specifically identify the rill
2 erosion as requiring rapid attention.

3 Q. Thank you. If you go back to Exhibit 2552 at
4 Page 3. There is a list of recommendations. You agree
5 with that?

6 A. Okay, I see the recommendations.

7 Q. Okay. There is, let's see, there is seven
8 recommendations, right?

9 A. Yes.

10 Q. And if you go to Page 3 of the 2002 inspection
11 there is a section called Action on Recommendations of
12 Last Inspection which I think, correct me if I am wrong,
13 that you said identified things that had been done
14 during the course of the year that were recommended the
15 previous year, is that correct?

16 A. Yes.

17 Q. And there is one item listed there, is that
18 correct?

19 A. That is correct.

20 Q. Do you see that item on page 3 of the 2001
21 inspection, the previous year's inspection?

22 A. Do I see --

23 Q. It says there was an action item, Actions on
24 Recommendations of Last Inspection, Page 3. Was that
25 listed the previous year as a recommendation?

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A. I did not call out C3 as one of the recommendations.

3 Q. Okay, were any of the recommendations from the
4 previous year listed on Action on Recommendations from
5 the previous year?

6 A. Ask that again.

7 Q. Of the seven recommendations made the year
8 before, were any of them listed the following year under
9 Actions on Recommendations of Last Inspection?

10 A. In my opinion, the first recommendation of the
11 2001 inspection for reseeding and mulching the slopes
12 applies to this lift C3. The others don't appear to
13 have been listed.

14 Q. Okay. If you would, please, find for me
15 Exhibit 5 in your file folder.

16 (Exhibit No. P-5 was marked for
17 identification.)

18 THE COURT: Without objection, why don't
19 we introduce Plaintiff's 2553.

20 MS. ALEXANDER: Yes, Your Honor. Thank
21 you.

24 BY MS ALEXANDER:

25 A. I have 5.

1 Q. Okay. Can you identify that for the record,
2 please.

3 A. It is the Annual Ash Pond Stability Inspection
4 dated March 1, 2004.

5 Q. Did you prepare this inspection report?

6 A. With the help of another gentleman I did.

7 Q. Okay. If you go to again Active Ash Disposal
8 Areas on Page 2, the fourth paragraph down, second
9 sentence reads, "The dikes were in need of mowing.
10 Small trees had grown to a height of three to five
11 feet." Is that the same issue you identified the
12 previous two years?

13 A. It is a similar recommendation, yes.

14 Q. And the last sentence of the final paragraph
15 on Page 2. It says, "The dike slope near one of the
16 road ruts showed signs of erosion." Would that be rill
17 erosion?

18 A. Where is that again?

19 Q. The next to the last sentence on the same
20 page, Page 2.

21 A. I can't say that is rill erosion.

22 Q. Okay. If you can turn to Page 3 of the
23 report, please. The top of the page it says, "Post
24 Inspection Note. The Ash Team Blitz inspection during
25 the week of January 19 revealed several areas of seepage

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1 along toe of Dike C and below the toe of the dike along
2 the intake channel." Is that correct?

3 A. It says that.

4 Q. Did you include this post inspection note in
5 the report?

6 A. Yes. I am sure I did.

7 Q. Why would this have been important to include?

8 A. One of the reasons we do this inspection
9 report is to find and document seepage. You know, this
10 is additional information.

11 Q. Do you find and document seepage because it
12 can affect stability?

13 A. If the conditions are right, it could.

14 Q. Are you familiar with the "Ash Team Blitz"?

15 A. I know what it was.

16 Q. Were you involved at all in it?

17 A. Not at Kingston.

18 Q. You were involved in it at other facilities
19 then?

20 A. I remember doing one other facility or one
21 facility.

22 Q. Which one was that?

23 A. Allen.

24 Q. And can you describe for us what the Ash Team
25 Blitz was?

1 A. We sent a large number of people to each of
2 the sites and we walked all of the slopes and all of the
3 disposal areas at each site and very carefully examined
4 them to, you know, see what we could find.

5 Q. Was that somehow different than an annual
6 stability inspection?

7 A. Yes, it was much greater depth and detail.

8 Q. Do you typically walk the dikes when you do an
9 inspection, a regular annual stability inspection?

10 A. Yes, we did.

11 Q. How was it more detailed when you did the Ash
12 Blitz then?

13 A. A greater number of people and a greater
14 amount of time.

15 Q. How much time did you spend at Allen?

16 A. Most of a day with I don't remember how many
17 people.

18 Q. Five?

19 A. I don't remember how many people.

20 Q. Okay. How does Allen compare in size to the
21 Kingston Fossil Facility?

22 A. I would say about half the acreage.

23 Q. Are you familiar with how many acres Kingston
24 is?

25 A. Not the whole reservation.

1 Q. What about the impoundment area?

2 A. It is approximately 220 acres.

3 Q. When you conducted dike stability inspections
4 of the Kingston Fossil Plant, how long did it take you
5 typically?

6 A. We almost, well, we always spent all day doing
7 these inspections.

8 Q. So, what time would you start in the morning?

9 A. You know, it varied each time. There was no
10 set time to start.

11 Q. Did you walk the whole facility?

12 A. Yes.

13 Q. You walked all 220 acres?

14 A. No. A lot of that 220 acres was water. We
15 don't walk that. We just walk the perimeter dikes.

16 Q. Do you know the length of the perimeter dikes?

17 A. I do not.

18 Q. But you walked each of them?

19 A. Yes.

20 Q. Were you ever provided or are you familiar
21 with the -- it's Exhibit 618 in your stack. It's titled
22 Kingston Ash Disposal Ash Recovery Team Exit Interview.

23 (Exhibit No. P-618 was marked for
24 identification.)

25 A. I didn't participate in the Kingston Ash Blitz

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1 so it is going to be difficult to comment on this.

2 Q. Okay. Were you ever informed of their
3 recommendations generally?

4 A. I can't say for certain.

5 Q. Do you remember any of the recommendations
6 other than the one that we just reviewed?

7 A. Which one did we just review?

8 Q. The one that says that there was seepage along
9 the toe of Dike C. Maybe that wasn't a recommendation.
10 It was an observation?

11 A. That was an observation.

12 Q. Do you recall anything else that came out of
13 the Ash Blitz?

14 A. Not in detail. I may be able to look at this
15 and remember, you know, some of the things that were
16 said.

17 Q. Well, let me -- let's take a look at it then.
18 Were you ever told that red water seeps were a problem?

19 A. I had been aware of red water seeps at
20 Kingston for many years.

21 Q. Did you know that Kingston was one of the
22 worse?

23 A. I object to the characterization as being the
24 worse. I don't know whether it was better or worse than
25 any other place.

1 Q. Okay. You weren't aware that is what the Ash
2 Blitz determined?

3 A. Not until you said so.

4 Q. Okay. Were you aware that they determined
5 that at Kingston there were underdrains that were
6 plugged?

7 A. I don't recall hearing that before having seen
8 this, no.

9 Q. Okay. What about the fact that the Swan Pond
10 site of the cell was saturated at the time they did the
11 Blitz. Were you told that?

12 A. I already knew that that side of the dike was
13 saturated at the time this was, this Blitz was
14 performed. In fact, as I remember, the reason for the
15 whole Ash Blitz was the 2003 event that saturated the
16 Swan Pond side of the dredge cells.

17 Q. Okay. Were you aware that the Ash Blitz found
18 that holes had formed in the side of cells and localized
19 areas?

20 A. I don't know what they mean by holes. I don't
21 know where they were. This is, it is sort of a poor
22 description. I don't know how to comment on that.

23 Q. Were you aware that they found that the lower
24 exterior dike of the north side was saturated? Before
25 today were you aware of that?

1 A. I don't remember that.

2 Q. What about the fact that they found trees on
3 the dikes? I guess that wouldn't be surprising to you,
4 right?

5 A. There have been trees on the dikes in places.
6 This doesn't say where the trees were.

7 Q. Well, if you go to Page 12, the first bullet
8 point says "Trees on dikes systemwide problem." You
9 wouldn't agree with that?

10 A. We have had trees on the dikes at several
11 plants.

12 Q. Would you agree it's a systemwide problem?

13 A. We have trees on several dikes at several of
14 the sites. I am not sure I would agree I would
15 characterize that as a systemwide problem.

16 Q. Were you aware that the Ash Blitz
17 characterized it that way?

18 A. Not in so many words, no.

19 Q. Okay. When you said that the inspections that
20 we are done in conjunction with the Ash Blitz were much
21 more in depth and they took longer and they used more
22 people to do each inspection, can you tell us what was
23 done during the Ash Blitz inspections that was different
24 than a regular annual inspection like the one that, the
25 ones that produced the reports that we are looking at?

1 A. The one that I participated in was very
2 similar other than the fact that there were generally
3 enough people that we could almost stand fingertip to
4 fingertip.

5 Q. Okay, in a normal annual inspection, how many
6 people would participate?

7 A. It was commonly about three. It varied
8 depending on the plant, the location, and who was
9 available, and, you know, size and things like that.

10 Q. All right. You have mentioned the 2003
11 blowout a minute ago. That was reported in your, in the
12 reported Exhibit 5, is that correct?

13 A. Exhibit 5. I will have to pull that again.

14 Q. Page 3 of Exhibit 5. It references a blowout
15 area. Is that the blowout area you were just referring
16 to?

17 A. Where do you see that?

18 Q. Page 3, the middle of the page. It says the
19 dredge cell dike slopes were fully saturated along Swan
20 Pond Road on the day of the inspection. It references
21 blowout areas and a repair done with rip-rap. That is
22 all referring to the 2003 blowout, correct?

23 A. That is correct.

24 Q. If you would, after the inspection report and
25 the photographs that are attached there is an e-mail

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1 that is included in this report.

2 A. Which exhibit are you talking about?

3 Q. Exhibit Number 5. It is page number 5668. Do
4 you recognize that e-mail?

5 A. Yes.

6 Q. What was your responsibility with respect to
7 the 2003 blowout area?

8 A. I assisted in the initial response to the
9 event.

10 Q. Okay. Did you ever see the repair work?

11 A. Yes, I did.

12 Q. And why was this e-mail attached to the
13 inspection report?

14 A. It documents our recommendations for emergency
15 repairs.

16 Q. Okay. Who are the, why is this group of
17 people included as recipients? Were they other people
18 who were involved in the repairs as well?

19 A. Yes. One is plant manager. One is the plant
20 environmental professional. One is the, I believe, the
21 yard superintendent at the time. These were people that
22 had some involvement in it.

23 Q. Okay. You will notice there is the fourth
24 paragraph down it says, "We do not recommend any
25 equipment on the slopes until the toe is stabilized and

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1 the pool of water (the driving force behind all of this)
2 in the dredge cell is completely drained." Did you
3 write that sentence?

4 A. Yes.

5 Q. Was it your understanding that the pool of
6 water that was, that there was a pool of water
7 associated with this blowout?

8 A. There was a pool of water in the dredge cell,
9 in the top of the dredge cell. It had been used --
10 either it was in operation when the blowout occurred, or
11 it was still up there from previous use.

12 Q. Okay. And it was your understanding that the
13 pool of water was the driving force behind the blowout,
14 is that correct?

15 A. It added pressure to the water that was
16 forcing its way out next to the road, yes.

17 Q. So is it fair to characterize it as the
18 driving force?

19 A. Yes.

20 Q. If the pool of water hadn't been there, the
21 blowout wouldn't have occurred, is that correct?

22 A. I don't know if I can say that.

23 Q. Did you ever consider that there might have
24 been a slime layer that caused the blowout?

25 A. No. Not at this elevation.

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1 Q. Okay. You didn't conduct this stability
2 inspection at Kingston in '06, did you?

A. I am not sure. I can't answer that.

4 MS. ANDERSON: Okay. I would like to move
5 Exhibit 5 into evidence.

6 THE COURT: Without objection, so
7 admitted.

10 BY MS. ALEXANDER:

11 Q. If you will turn, please, Mr. Albright, to
12 Exhibit 1665.

15 | A. Okay

16 Q. That is the 2006 inspection report, is that
17 correct?

18 A. Yes. It appears to be.

Q. Did you prepare that report?

A. No, it doesn't look like I did.

21 Q. Did you have any involvement in reviewing it
22 or drafting it?

23 A. I don't remember having any involvement in
24 this one

25 Q. Okay. If you could just turn to the last

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1 page, Page 5 of the report.

2 A. Okay.

3 Q. The first bullet point there says, "Remove
4 trees from Dike C, as reported in the FY 2005 report."
5 Is that a recommendation made in his report?

6 A. It is.

7 Q. Is that the same recommendation we have been
8 reviewing in the previous reports?

9 A. It is a common recommendation that we make.

10 Q. Okay. If you would, please, in your stack you
11 have Exhibit 1542.

12 (Exhibit No. P-1542 was marked for
13 identification.)

14 MS. ALEXANDER: I would like to move
15 Exhibit 1665 into evidence.

16 THE COURT: Without objection so admitted.

17 (Exhibit No. P-1665 was received
18 in evidence.)

19 BY MS. ALEXANDER:

20 A. You said 1542?

21 Q. Yes, sir.

22 A. I have it.

23 Q. Okay. Are you, if you would, please -- well,
24 let's start are the beginning. You prepared this
25 report, correct?

1 A. With the assistance of another man I did.

2 Q. And you conducted the inspection that is the
3 subject of the report, yes?

4 A. He and I did, yes.

5 Q. And the inspection was done for dike
6 structural stability, is that correct?

7 A. Yes. To the extent we could see it.

8 Q. Understood. It says at the top that it was
9 done on November 21st, 2005. I think that might be a
10 typo. Would that be 2006?

11 A. There must be a typo in one of these dates.
12 At this point I can't tell which. It is likely that
13 November 21st, 2005 is the typo.

14 Q. You think November 21st, 2005 might be the
15 time frame?

16 A. Typo.

17 Q. Typo, thank you. I couldn't hear you. If you
18 would, please, turn to Page 4 of this report. You see
19 the photograph there where it says "new sump"?

20 A. Yes.

21 Q. It says, "a few small trees are growing on the
22 slopes." Is that a recommendation or observation?

23 A. It's an observation.

24 Q. It's an observation that has been made
25 throughout each of these reports, is that correct?

1 A. It is a common observation, yes.

2 Q. It's a common observation that they should be
3 removed every year?

4 A. Removed or mowed, yes.

5 Q. If you go to the bottom of that page it says,
6 "Since November 1 over 30 piezometers and a system of
7 dewatering wells have been installed?" Do you know why
8 those were installed?

9 A. It was to help monitor the condition of the
10 dike slope along Swan Pond Road.

11 Q. Is that because there was another blowout?

12 A. There were two incidents and seeps long that
13 section of dike.

14 Q. The piezometers were installed in response to
15 the second one, correct?

16 A. Yes, I believe so.

17 Q. All right. Have you ever been trained to
18 measure water levels using a piezometer?

19 A. That is, I had classes through the years and
20 some of this sort of thing was mentioned in some of the
21 refresher and continuing education seminars I have had.
22 Specific training on reading and measuring levels and
23 piezometers, no, I have not.

24 Q. So you have never undertaken to read a
25 piezometer or do a water level measurement during one of

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1 your annual dike stability inspections, correct?

2 A. No, I have not. We have other people that do
3 that for us.

4 Q. All right.

5 MS. ALEXANDER: If I could move 1542 into
6 evidence, Your Honor.

7 THE COURT: Without objection, so
8 admitted.

9 (Exhibit No. P-1542 was received
10 in evidence.)

11 BY MS. ANDERSON:

12 Q. Are you aware that Brian Langford and Jamey
13 Dotson conducted the inspection of the Kingston Fossil
14 Plant dike in 2008, or I am sorry, 2007 and the report
15 was issued the winter of 2008?

16 A. I am not particularly aware of that. Do you
17 have a copy that you want me to look at?

18 Q. Sure. There is Exhibit 188 in your folder.
19 Take a look at that.

20 A. What number was what again?

21 Q. 188.

22 A. I have it.

23 Q. It says that Brian Langford and Jamey Dotson
24 performed the inspection on December 4, 2007, correct?

25 A. The cover letter says that.

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1 Q. Were you involved in that inspection or
2 drafting this report?

3 A. I don't remember having any involvement in
4 this inspection.

5 MS. ANDERSON: I would like to move
6 Exhibit 188 into evidence.

7 THE COURT: Without objection, so
8 admitted.

11 BY MS. ANDERSON:

12 Q. You were involved in the inspection that took
13 place October 20, 2008?

A. Was that the last inspection?

Q. Yes, it was.

16 A. Do you have a copy in here that I can look at?

17 Q. I have multiple copies. Let's start with
18 Exhibit 12.

25 We'll break at this time and come back and

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1 resume with this witness tomorrow at nine a.m.,
2 Wednesday, September 21.

3 Mr. Albright, you may be excused for the
4 evening. Remember you are still under subpoena. You
5 should not discuss your testimony with any witness, or
6 continued testimony with other witnesses in this case.

7 THE WITNESS: All right.

8 THE COURT: Thank you.

9 Mr. Small.

10 MR. SMALL: Your Honor, the housekeeping
11 matter we want to speak about was the testimony of TVA's
12 Chief Executive Officer, Tom Kilgore. We made
13 arrangements to have him here in the morning. Of
14 course, there are different scheduling issues with
15 making the CEO available. Mr. Friedman has indicated he
16 expects the examination to be relatively short. He has
17 no objection to taking Mr. Kilgore out of order so that,
18 if it would be okay with the Court, we would ask to take
19 Mr. Kilgore out of order at nine and then --

20 THE COURT: At what time?

21 MR. SMALL: At nine o'clock.

22 THE COURT: Tomorrow morning?

23 MR. SMALL: If that's acceptable to the
24 Court.

25 THE COURT: It sounds like that is fine

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1 with everybody, take Mr. Kilgore and do his complete
2 direct and cross, however long that might take and then
3 pick back up with Mr. Albright.

4 MR. FRIEDMAN: If the Court please, we
5 would like to do that.

6 THE COURT: Mr. Small, if you will inform
7 Mr. Albright -- it sounds like he doesn't need to be
8 here at nine o'clock as he may have been under the
9 impression.

10 MR. SMALL: We'll take care of those
11 arrangements.

12 THE COURT: Do we know how long
13 Mr. Kilgore might take?

14 MR. FRIEDMAN: We'll try to get him on and
15 off.

16 THE COURT: I won't hold you to it. On
17 and off could be 30 minutes or all day.

18 MR. FRIEDMAN: That's right. It is just
19 between the on and off I am stuck with.

20 THE COURT: That's fine. Okay. We'll
21 start at nine a.m. tomorrow with Mr. Kilgore and then
22 when he's done, we'll pick back up with Mr. Albright.

23 (Court was recessed.)

24 I CERTIFY THAT THE FOREGOING IS AN ACCURATE
25 TRANSCRIPT OF THE RECORD OF PROCEEDINGS IN THE
ABOVE-ENTITLED MATTER.